

Reproductive and Child Health, Nutrition and HIV/AIDS Program (RACHNA)

Final Evaluation

Written by:

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Prepared for CARE/India

June 2006



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We greatly enjoyed the chance to see the RACHNA program in action on our field trips and thank CARE for organizing them so well, accompanying us, and enhancing our learning. We would like to thank the officials of the Ministries of Women and Child Development and Health and Family Welfare at central and state level who took time out of their busy schedules to accompany the team, meet with us, and share valuable insights. We were very encouraged by the exemplary coordination between the two ministries, the convergence of ICDS and RCH services on the ground, and the excellent partnership forged with CARE to strengthen these programs.

The Final Evaluation Team would like to thank CARE for the outstanding administrative support provided to the team and their excellent organizational work in preparing for our visit. We congratulate all involved in the RACHNA program for your accomplishments in improving the health and nutritional well-being of millions across nine states of India.

Abbreviations and Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
AP	Andhra Pradesh
ASHA	Accredited Social Health Activist
AWC	Anganwadi Center
AWW	Anganwadi Worker
BCC	Behavior Change Communication
BCG	Bacillus Calmette-Guérin vaccine
B-E	Baseline vs. Endline Surveys
BI	Bihar
BLAC	Block Level Advisory Committee
BLRM	Block Level Resource Mapping
BSS	Behavioral Surveillance Survey
BTT	Block Training Team
CA	Change Agent
CBMS	Community-based monitoring system
CBO	Community-based Organization
CDPO	Child Development Project Officer
CG	Chhattisgarh
CHC	Community Health Center
CPW	Currently Pregnant Woman
CSB	Corn Soy Blend
DAP	Development Assistance Proposal
DLAC	District Level Advisory Committee
DPT	Diphtheria, Pertussis, Tetanus vaccine
DTT	District Training Team
ER	Evaluation Research
FANTA	Food and Nutrition Technical Assistance Project
FP	Family Planning
FSW	Female Sex Worker
FY	U. S. Fiscal Year (October-September)
GEAC	Genetic Engineering Approval Committee
GOI	Government of India
GOMP	Government of Madhya Pradesh
HFW	Health and Family Welfare
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HRBG	High-risk Behavior Group
ICDS	Integrated Child Development Services
IEC	Information, Education, Communication
IFA	Iron and Folic Acid
IFPRI	International Food Policy Research Institute
IMR	Infant Mortality Rate

INHP	Integrated Nutrition and Health Project
ISOFI	Inner Spaces, Outer Faces Initiative
IUD/IUCD	Intra-uterine Device/Contraceptive Device
IYCF	Infant and Young Child Feeding
JH	Jharkhand
LHV	Lady Health Visitor
LOA	Life of Activity
MCH	Maternal and Child Health
M&E	Monitoring and Evaluation
MIS	Management Information System
MOHFW	Ministry of Health and Family Welfare
MOST	Micronutrient Operations Strategy and Technology Project
MOWCD	Ministry of Women and Child Development
MP	Madhya Pradesh
MPW	Male Multi-Purpose Health Worker
MSM	Men who have Sex with Men
MTR	Mid-term Review
NA	Not Applicable
NACO	National AIDS Control Organization
NACP	National AIDS Control Project
NCC	National Cadet Corps
NFHS	National Family Health Survey
NGO	Non-governmental Organization
NHD	Nutrition and Health Day
NIPCCD	National Institute of Public Cooperation and Child Development
NRHM	National Rural Health Mission
OR	Orissa
PE	Peer Educator
PHC	Primary Health Center
PRI	Panchayati Raj Institution
PSI	Population Services International
PTT	Performance Indicator Tracking Table
R1	Round 1 of Rapid Appraisal
R2	Round 2 of Rapid Appraisal
R3	Round 3 of Rapid Appraisal
RA	Rajasthan
RACHNA	Reproductive and Child Health, Nutrition and HIV/AIDS Program
RAPS	Rapid Appraisal Survey
RCH	Reproductive and Child Health Program
RH	Reproductive Health
RHCA	Reproductive Health Change Agent
RTI	Reproductive Tract Infection
SACS	State AIDS Control Society
SEARO	Southeast Asia Regional Office, WHO
SHG	Self-help Group
SM	Social Marketing

SNP	Supplementary Nutrition Program
STI/STD	Sexually-transmitted Infection/Disease
TA	Technical Assistance
TBD	To be determined
THR	Take-home Ration
TOT	Training of Trainers
TT	Tetanus Toxoid
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
US	United States
USAID	United States Agency for International Development
WAZ	Weight for Age Z Score
WB	West Bengal
WCD	Women and Child Development
WHO	World Health Organization

Executive Summary

RACHNA, INHP II and Chayan. The \$160 million Reproductive and Child Health, Nutrition and HIV/AIDS Program (RACHNA) is CARE/India's umbrella program that consists of two projects. The first, the Integrated Nutrition and Health Project (INHP II) targets pregnant and lactating women and children less than two years to improve child survival and nutritional status. Interventions include supplementation with food (using Title II food aid and local food), vitamin A, iron and folic acid, immunization, antenatal care, and improved practices for safe delivery, newborn care, breastfeeding and complementary feeding. The project strives to strengthen the Government of India's (GOI), Ministry of Women and Child Development's (MOWCD) Integrated Child Development Services (ICDS) Scheme, and the Ministry of Health and Family Welfare's (MOHFW) Reproductive and Child Health Program (RCH), and foster convergence between them. It works in 94,593 catchment areas called anganwadi centers (AWC) in 747 blocks in 78 districts in nine states, namely Andhra Pradesh (AP), Bihar, Chhattisgarh (CG), Jharkhand (JH), Madhya Pradesh (MP), Orissa (OR), Rajasthan (RA), Uttar Pradesh (UP), and West Bengal (WB).¹ Title II food aid reaches 6.6 million pregnant and lactating women and children up to six years, consistent with ICDS guidelines, but numbers of women and children reached for other services vary by the intervention.

The second project is *Chayan*, a reproductive health and HIV/AIDS prevention project. The rural component of *Chayan* also works with ICDS and RCH to promote family planning for birth spacing and prevention and management of Reproductive Tract and Sexually Transmitted Infections (RTI/STI) in 36,300 communities in 300 blocks in 29 districts together with INHP II in CG, JH, RA, and UP states. All these rural activities rely on GOI personnel and district teams of CARE staff to facilitate implementation. Urban *Chayan* supports the National AIDS Control Program (NACP) of the National AIDS Control Organization (NACO) and works in the same four states as rural *Chayan* but in 21 cities, plus Delhi slums. It provide HIV/AIDS prevention information and RTI/STI referrals for youth (in and out of school) and high-risk behavior groups (truckers, migrants and female sex workers (FSW)). Empowering communities by working with Community-based Organizations (CBO) and Panchayati Raj Institutions (PRI), and influencing national policy are key features of RACHNA. While INHP II runs five years from October 2001- September 2006, *Chayan* started nearly a year later and runs from July 2002-October 2006. **The scale of RACHNA is enormous, making it the largest non-governmental organization (NGO) program of its type in the world.**

The operational model for the rural program is demonstrating "best practices" in 10% of the anganwadis with intensive NGO involvement through 138 partnerships, then replicating and scaling these up through government systems. The four "best practices" promoted were fixed day, fixed site service delivery at monthly Nutrition and Health Days (NHD), community volunteer Change Agents and Reproductive Health Change

¹CARE's assistance to 747 ICDS blocks is mostly rural, but includes 32 urban blocks.

Agents (in rural *Chayan*), Community-Based Monitoring Systems, and Block-Level Resource Mapping. Two thirds through INHP II, in order to better achieve the intended health and nutrition outcomes, CARE introduced new tools and sharpened its focus on improving supportive supervision and home visits for behavior change for the most critical life cycle phases and interventions. It accelerated scale-up through ICDS supervisory sector meetings, facilitated by NGOs and CARE District Teams across entire blocks. The “best practices” were de-emphasized, except NHDs. The urban *Chayan* program also followed a model of testing “best practices” in demonstration sites through NGO partnerships, namely Peer Educators and Community Stakeholder Groups. The original *Chayan* project approved by USAID was for six years through June 2008. However, the end date was synchronized by CARE and USAID in 2004 with the September 30, 2006 end date for INHP II, and later extended to October 31, 2006 to allow more time to disburse project funds. Thus, the shortened timeframe did not allow for replication.

It is important to note that from 2003 through 2004 CARE successfully completed the unanticipated challenge of smoothly transitioning responsibility for all of the ICDS food rations in INHP II, except Title II oil, to the state governments, greatly enhancing the states’ supply chain management skills. This was a major accomplishment as a result of the unexpected 2002 GOI ban on imports of Title II Corn Soy Blend by CARE due to concerns about Bio-engineered Foods. The CARE team gets high marks for achievements at an enormous scale in the RACHNA program and for being resilient enough to overcome many challenges and uncertainties. The partnership between GOI counterparts and district teams of CARE staff was essential to making the program work.

The Final Evaluation conducted in India in April 2006 by a team hired by CARE and USAID drew on numerous program information documents, interviews with key informants and stakeholders, and field visits. Representatives of the MOWCD: Mr. Saroj Adhikari and Mr. A.K. Goel, as well as Dr. Sangeeta Saxena from the MOHFW, accompanied the evaluation team. The team benefited from draft findings of a March 2006 independent **qualitative assessment** of key RACHNA program processes. To assess RACHNA’s impact the team relied primarily on draft findings from **three quantitative data sources**: (1) program-wide results from 2001 Baseline (2003 for *Chayan*) and 2006 Endline (**B-E**) representative household surveys in all states but Bihar, (2) program-wide results from 2003 and 2006 HIV-related Behavior Surveillance Surveys (**BSS**), and (3) pre-test, post-test, controlled, quasi-experimental Evaluation Research (**ER**) studies on newborn health and survival in one intervention vs. a comparison district in UP (2003 and 2006) and on nutrition in one intervention vs. a comparison district in UP and AP states. Health and nutrition INHP II outcomes data from three annual rapid assessments (**RAPS**) between 2003 and 2005 in one panel district each in eight states served as a secondary source. The team used a triangulation approach to INHP II findings present in multiple data sources, with changes seen in more than one source deemed more significant than if seen in only one source, and agreed on criteria for determining the significance of changes in the **ER** and **RAPS** data, which are not representative program-wide.

The **Monitoring and Evaluation** systems used by CARE had many merits and generated valuable data for the final evaluation, but some improvements are needed. The Health Management Information System (HMIS) used was found to be excellent for process indicators but weak for health and nutrition outcome indicators. Such outcome data are greatly needed for management for results, especially at the block and district level. Since reducing malnutrition was a major intended impact of INHP II, monitoring nutritional status changes during the program would have been valuable, rather than only at baseline and endline. There were problems with changing indicator definitions, numerators and denominators, questionnaire design, data entry and cleaning, and analysis in the **B-E** surveys, and inclusion criteria in the **BSS** surveys that should be avoided in the future.

Coverage of RACHNA Program Improvements: By April 2006 CARE categorized the status of the 94,593 AWCs as 10% demonstration, 25% replication, and 65% other for both INHP II and rural *Chayan*. Universal coverage of CARE assistance for ICDS supplementary feeding and food monitoring was achieved. Nutrition and Health Days were held in 54% of the AWCs by October-December 2005 against the 60% target for September 2006. Change Agents were present in 48% of villages and in rural *Chayan* 31% had Reproductive Health Change Agents. As part of CARE's new scale-up approach from 2005 onwards, the Home Visit Tool had reached 73% of Anganwadi Workers (AWW). The urban *Chayan* program remained only in demonstration sites, as agreed with USAID. The number of sites with Peer Educators is 110 for FSW, 126 for migrants, 107 for truckers, and 239 AWCs for youth, as well as 3,914 free or socially marketed condom outlets. The number of Peer Educators trained is 7,278 who serve 124,399 truckers, migrants and FSW, as well as 3,936 youth Peer Educators.

Key Findings:

- There have been substantial improvements in RACHNA program areas in nutritional status, access to and use of health, nutrition, family planning and HIV/AIDS prevention services, as well as important changes in behavior.
- RACHNA has clearly demonstrated that the effectiveness of large scale GOI programs such as ICDS and RCH can be improved at a modest investment over a period of several years, utilizing the managerial and technical expertise of non-governmental organizations such as CARE.
- The RACHNA program had an influence on national and state policies. The lessons learned are relevant to improving performance in GOI programs such as ICDS, RCH, the National Rural Health Mission and the National AIDS Control Program.
- **New approaches and tools** introduced by Rural RACHNA in 2005 including improved AWW home visits, better supervision, and using sector meetings for in-service training are promising and should be tested to determine their impact on health and nutrition outcomes.

- **Nutrition and Health Days** for fixed day fixed site delivery of health and nutrition services at AWCs were an effective strategy for increasing use of services and convergence between the ICDS and RCH programs, but do not work unless a Take-Home Food Ration is available as an incentive for participation.
- **Birth Spacing** was successfully integrated into the ICDS program in the *Chayan* project and should be an essential part of the package of services offered everywhere. It was more feasible to establish free supplies of contraceptives at AWCs in coordination with the RCH program, than socially marketed supplies.
- **Capacity Building** - Short 2-day training workshops, RACHNA's principal approach, were probably not enough to adequately build the skills needed across the breadth of subject areas in the RACHNA program. Training would benefit from more up-front training needs assessment and evaluation of on the job skills after training, as well as performance-based training materials. For greater success of similar programs in the future, ICDS and RCH decision-makers will need to release workers for a longer period of time to ensure that they receive adequate refresher training on new approaches.
- **Behavior Change Communication** - The Rural RACHNA program had less success in changing behaviors, especially for improving infant and young child feeding and practices, than it did in increasing use of services, with the exception of one time, perhaps easier to change behaviors, e.g. newborn care. Further improvement is needed in AWW's and ANM's counseling skills and in the availability of more culturally-specific job aids on small doable actions for improving complementary feeding practices. Better communication of advantages and side effects of family planning methods using job aids would be valuable.
- **Gender Integration and Social Equity Concerns** were addressed successfully by CARE in the Rural RACHNA program. However, continuing caps on enrollments for ICDS supplementary feeding in some states, despite the India Supreme Court's mandate that access should be universal, are a concern.
- **Change Agents** were more effective for mobilizing the community to use services and for reducing social exclusion than for making home visits and counseling families as behavior change agents.
- **HIV/AIDS Prevention** – The Urban *Chayan* project was successful in improving HIV/AIDS prevention practices among High-Risk Behavior Groups and Youth through use of Peer Educators and an effective Behavior Change Communication strategy. The existing demonstration sites can serve as teaching examples for other NGO projects.

Results and recommendations will now be presented separately for the rural and urban programs.

RURAL RACHNA

Results Achievement in INHP II. Low weight for age malnutrition was reduced significantly from 61% to 53% across INHP II program areas. This reduction is nearly twice that seen in the all India rural average for this indicator between the National Family Health Surveys conducted in 1992/93 and 1998/99. There were impressive increases in the use of RCH health services, including measles immunization which nearly doubled and Tetanus Toxoid immunization, micronutrient supplementation with vitamin A, iron and folic acid, and contacts and home visits by Auxiliary Nurse Midwives (ANM). Impact on increasing antenatal check-ups was mixed. The use of ICDS nutrition services also increased, including supplementary feeding for pregnant and lactating women and children 6-23 months and contacts and home visits by AWWs.

There were significant behavior change improvements as well. Most notable were improved newborn care practices, including use of the “5 cleans” at delivery, initiating breastfeeding within the first hour and giving no prelacteal feeds, and drying and wrapping the baby. Pregnant women who had made birth plans increased per the **ER**, as did women in the intervention districts who said they ate 3 or more meals per day and yellow/orange fruits in their last pregnancy. However, apart from impressive increases in introducing solid foods to complement breastfeeding from 6-9 months of age, there was little improvement in other critical infant and young child feeding practices. The percent of mothers who gave at least half the recommended quantity of semi-solid foods to children 12-23 months showed no significant improvement. Only 5-9% of mothers fed at least half the recommended quantity in five states. There were no significant improvements in mothers appropriately feeding their children 6-23 months by including at least three food groups, adding oil, or feeding with sufficient frequency. A greater emphasis on improving infant and young child feeding practices through effective behavior change communication is needed, including feeding the sick child and hand washing with soap.

Rural Chayan Results A major improvement in access to oral contraceptives and condoms in program villages was achieved by December 2005, with 68% of AWCs having a supply of free contraceptives from the MOHFW vs. a 2006 milestone of 30%, and socially marketed contraceptives available in 32% of AWCs vs. a 2006 milestone of 50%. This contributed to increased use of oral contraceptives and condoms in program areas. Women’s awareness of RTI/STI symptoms increased significantly, but referral and treatment networks remained weak. The RACHNA program did a good job of promoting the advantages of birth spacing, but was constrained by the RCH program’s overwhelming emphasis on sterilizations. More needs to be done to promote birth spacing, and CARE’s successful use of the ICDS program to promote and distribute temporary methods is a great start that should be continued and scaled-up.

Increasing convergence between the ICDS and RCH programs to increase use of services and improve behaviors was a major strategy and accomplishment of RACHNA. Most effective was the CARE innovation of monthly Nutrition and Health Days at which

a Take-Home Food Ration (THR) for pregnant and lactating women and children 6-36 months was used as an incentive to increase participation for immunization, antenatal check-up, micronutrient supplementation and weighing/growth monitoring services at the AWC. An impressive measure of community involvement is that CBOs or PRIs participated in nearly half of all NHDs. However, the NHD approach is very food dependent. Of the 46% of all program AWCs that did not have the THR available in October-December 2005, only 33% of them provided immunization and or antenatal check-ups on a scheduled NHD in the absence of the food, despite efforts by CARE to ensure that at least 80% of NHDs went forward with or without food by the end of the program. Lack of the key THR incentive was due to reversion to spot feeding in states like AP and WB and supply chain problems in other instances. Irregular medical supplies or ANM presence and incomplete attendance, e.g. by children due for immunization or vitamin A, also impede the success of NHDs. The payoffs will be high for resolving these problems to make NHDs more successful.

Recommendations for Rural RACHNA Program: The final evaluation team recommends, as part of successfully closing the RACHNA program, that **CARE:**

1. Work with USAID and the GOI to prepare a transition plan for all services that end when RACHNA ends in September-October 2006.
2. Document lessons learned, prepare and disseminate “how to” guides, and advocate for replication by ICDS, RCH or NRHM of CARE’s successful innovations: (a) community outreach and mobilization, (b) aligning ICDS and RCH supervisory sectors, (c) essential elements of an NHD based on presence of THR, (d) integrating birth spacing into ICDS, and (e) food commodity tracking systems for ICDS.
3. Document major lessons learned in RACHNA’s monitoring and evaluation systems to improve management for results and focus on health and nutrition outcomes.

For **Graduation of the Title II Program** by 2008-2009, that **CARE:**

1. Immediately develop general and state specific strategies for graduating the entire program, and share with staff and stakeholders. These should include: strengthening key state level systems, policy dialogue at state and central GOI level, and enhancing the nutritional focus of ICDS, as feasible given the limited timeframe,.
2. Exit from using Title II resources for most service delivery activities at community/sector/block level, and instead strengthen ICDS systems at higher levels, and synthesize, consolidate, and document lessons learned over its many years of engagement with ICDS. With limited time and resources remaining, CARE no longer has the luxury to be able to work at the block and sector level unless such work contributes to larger objectives beyond that of improving individual block/sector programs. This is the logic behind the next recommendation.
3. Assess the effectiveness of RACHNA approaches in a minimum number of blocks to better influence ICDS reforms with a solid evidence base as follows:
 - a. Identify a barebones, least cost approach to delivering the NHD and improving home visits and supervision and evaluate this model in several new areas.

- b. Review the sustainability of the RACHNA approach by assessing the experience of a sample of blocks two years after CARE's exit and identify changes in strategy or additional steps to increase sustainability by ICDS and RCH.
 - c. Test and evaluate the health and nutritional outcomes of the following recent refinements in CARE's approach, through operations research to be undertaken with independent technical assistance: improved AWW home visits and behavior change counseling, better supervision, using sector and cluster meetings for in-service training and improved supervision. The team is concerned that these innovations will not have been implemented long enough, nor perhaps well enough (without a state-of-the-art behavior change strategy based on adequate formative research, job aids and training to improve counseling skills) nor tested to prove their effectiveness before RACHNA ends. The outcomes of greatest interest are improved breastfeeding, complementary feeding and hygiene practices, and in turn improved nutritional status of 6-23 months old children.
- 4. Expand the technical capacity and policy dialogue role of its central and state offices with Title II resources and use less of these resources to support district teams beyond those needed to implement recommendation #3. As part of its policy agenda, CARE should:
 - a. Assist the ICDS develop a better national system for monitoring nutritional outcomes and using this information for decision-making and advocacy.
 - b. Push for maintaining/mandating the THR program for pregnant and lactating women and children aged 6-36 months.
 - d. Limit policy advocacy to policies for which there is a strong evidence base.
- 5. Graduate most NGO activities financed with Title II resources, but document its experiences with NGOs, especially to inform GOI plans to use NGOs in NRHM.
- 6. Negotiate a quick transition to 100% monetization of Title II food in order to redirect its commodity staff to strengthening state commodity management systems for major, positive, long-term impact, instead of staff time spent insuring that deliveries of Title II oil are synchronized with receipt of the locally procured ration.
- 7. Not devote any Title II resources to scaling up the women's self-help group local food procurement model unless and until it has clear evidence of the true costs and benefits of this approach and a better understanding of what would happen to the ability of the ICDS to deliver its core program, if it assumes responsibility for this model once scaled up. Decisions need to be based on a detailed analysis of the full costs (both direct and indirect), including the costs of additional staff, management structures, equipment, quality assurance of food products produced, and opportunity costs to use of ICDS staff time.

The evaluation team believes that there is a great need and many opportunities for CARE/India to continue its invaluable work in maternal and child health and nutrition and reproductive health in India, regardless of the imminent end of the Title II program, and recommends that **CARE/India:**

1. Further policy dialogue and advocacy with the GOI at state and national levels and raise resources for an extension and refinement of its rural RACHNA integrated health, population and nutrition program, which effectively converges ICDS and RCH services. Specific components and innovations of greatest value to continue are:
 - a. *Strengthening CBOs/PRI*s for demand generation and increasing accountability of ICDS and RCH systems for achieving intended health and nutrition outcomes.
 - b. *Reproductive health system and services strengthening* for increasing access to free contraceptives in ICDS and RTI/STI referral and treatment, including assuring availability of drugs.
 - c. *Improving nutrition in pregnancy and lactation and in children under-two*, especially infant and young child feeding and hygiene practices.
 - e. *Improving supervision, capacity building and behavior change communication*.
2. Position CARE as a Resource Center for Nutrition and Health. Strengthen the technical capacity and policy dialogue role of central and state offices. Raise resources to continue district teams.
3. Provide capacity building for its own staff, both on thematic as well as management issues. Standardize the technical content of programs and assure quality control on materials, allowing some flexibility for state CARE teams to respond to local needs and contexts.
5. Strengthen its monitoring and evaluation capacity. Building partnerships with academic institutions and networks will be useful for conducting program evaluations with consistency and quality.
6. Seek opportunities to use its wealth of expertise in supply chain management to strengthen GOI systems for essential drugs, vaccines, contraceptives, micronutrients.

For USAID/India and USAID/Washington/FFP, the final evaluation team recommends that CARE be given at least three more years to enable it to phase out of this large and complex Title II program in a responsible manner. Because supplementary feeding is a state function, CARE will have to negotiate and execute separate phase-out strategies with each of the nine states for its current programs, each of which serves more people than the populations of many African and Latin American countries, as well as with the central government

The final evaluation team also recommends that **USAID/India:**

1. Provide technical assistance to CARE for: (1) operations research to build the evidence base by testing CARE's new infant and young child feeding home visit, supervision and behavior change approaches, and (2) a costing and feasibility study of the self-help group local food model as mentioned in the recommendations above.
2. Continue promoting Birth Spacing family planning counseling and services as an essential element of the ICDS program in convergence with RCH as successfully demonstrated by the *Chayan* project.

Government of India

The CARE RACHNA program has demonstrated reduction in childhood malnutrition, increased use of health and nutrition services and positive behavior change through innovations and improvements to ICDS and RCH systems and the convergence between them that merit consideration by the GOI for replication as follows:

1. The sharpened focus on achieving positive health and nutrition impact and outcomes for children under two years and pregnant and lactating women. This requires basic and refresher training to improve skills of AWWs, ANMs and their supervisors.
2. Integrating Birth Spacing family planning counseling and services into the ICDS program through convergence with RCH. In contrast to *Chayan*, a focus on terminal methods still predominates in the RCH program. The MOHFW should better train ANMs to improve the quality of family planning counseling and service delivery, including IUD insertion skills.
3. The use of the take-home ration (THR) for supplementary nutrition to better reach Pregnant and Lactating Women and Children 6-36 months. A decision should be taken by the national ICDS program to require THR for these groups, and not to allow states to do spot feeding instead.
4. Using Community-based Organizations and Panchayati Raj Institutions (PRI) to create enabling conditions, generate demand for services, reduce social exclusion, monitor the quality of the program and hold service providers accountable. Given provision in the NRHM for the new ASHA community volunteer, the GOI should learn from CARE's success with Change Agents for reducing social exclusion and mobilizing families to use health and nutrition services, and lack of success with Change Agents for making home visits and doing counseling. The role of the ASHA in assuring ICDS and RCH convergence needs to be clarified. Her work should include a nutrition focus.

Additional general recommendations for consideration by the **GOI** are:

5. Increasing accountability for its major investments to reduce malnutrition in children through effective measurement and reporting of nutritional status and use of such data for management and decision-making at all levels.
6. Transforming weighing of children in ICDS into a preventive growth promotion program for under-twos, focusing more on weight gain and prevention of growth faltering and less on Nutritional Status Grades Normal through 4 and treatment of severe malnutrition.
7. Re-orienting the priority tasks of the AWW in ICDS to focus more on growth promotion in under-twos including effective counseling and home visits to improve breastfeeding and complementary feeding and hygiene practices.
8. Achieving universal coverage of measles immunization, including catch-up campaigns for children greater than one year of age. Measles is often fatal in malnourished children and several cases in children 12-23 months were seen during the final evaluation field visits in UP.

9. Strengthening performance and accountability by middle level supervisors and managers in the ICDS and RCH programs at the sector, PHC and block level for achieving health and nutrition outcomes.

URBAN RACHNA- CHAYAN HIV/AIDS PREVENTION

Results Achievement in Urban Chayan The final evaluation team found the program at the field sites visited to be excellent and to have many advantages over other interventions in India and Asia with essentially the same long-term goals. The target population had gone a long way beyond mere awareness and knowledge of HIV/AIDS. There seemed to be a genuine attitude and behavior change and internalization of HIV/AIDS prevention concepts. It is noteworthy in the CARE intervention areas that increases in condom use over 2003 levels, with non-marital non-cohabiting partner, originally expected to be achieved in 2008, were met by 2006, an impressive accomplishment a full two years ahead of schedule. The increases between 2003 and 2006 were as follows: for truckers from 62% to 83%; for migrants from 61% to 69% and for FSW from 68% to 87%. Endline data indicate that when High Risk Behavior Groups (HRBG) with RTI/STI were referred for treatment more than 90% of them obtained the necessary medicines and 82%-91% were completely cured. Treatment seeking behavior for STIs increased from around 71% in 2003 to 82%-88% by 2006. In the 2006 endline about 60-70% of the HRBG target groups had personal experience with the project's Behavior Change Communication activities in the community. Unfortunately a serious flaw in the design of the endline **BSS**, using the presence of risk behavior as an inclusion criteria for truckers and migrants, may have eliminated those very persons that were successfully converted to a low risk lifestyle. This inclusion screened out respondents at lower risk of HIV/AIDS, thus precluding evaluating more quantitative data from the **BSS**.

The Peer Educator (PE) concept proved to be a success. They are the backbone of the program and are highly motivated without any remuneration. Their dedication and effective behavior change communication was exceptional and is not only increasing awareness but changing attitudes. In very real terms the community served has assumed ownership of the program, especially in the case of migrant, trucker and youth in school components. Sixty Youth Resource Centers were established and functioning and those observed during the field visit were very impressive, both for their operations and the knowledge and attitude of the members. Condoms, both free and sold, were readily available at all sites. Based on the team's limited field experience, the behavior change communication strategy is one of the strong points of Urban *Chayan*.

While district and city level officials are aware of and appreciate the Urban *Chayan* program, there is less familiarity with it at more senior levels such as in State AIDS Control Societies and the NACP. CARE should make greater efforts to familiarize these senior officials with the program and discuss how it might be replicated. The quality of field work was so uniformly good, and the impact so obviously visible that the *Chayan* effort should not be allowed to be wasted. It is recommended that the intervention be

continued and scaled-up to cover wider areas. The existing demonstration sites can serve as teaching examples for other NGO projects. The field intervention by the *Chayan* project is an example of a 'best practice intervention'.

Recommendations for the Urban *Chayan* Program: The final evaluation team recommends, as part of successfully closing the RACHNA program, that **CARE:**

1. Obtain national data from NACO and data on the impact of other similar projects working with the same target groups in low prevalence states to use for comparison purposes to better evaluate the impact of the program in the absence of a control group in the **BSS**.
2. Update the technical knowledge of its staff and Peer Educators to include injecting drug use as a major cause of blood mediated transmission and not just blood transfusions
3. Work with USAID and the GOI to prepare a transition plan for all services that end when RACHNA ends in September-October 2006.

In General **CARE** should:

1. Raise resources for the continuation and expansion of the excellent *Chayan* HIV/AIDS prevention program and for transferring the know-how to other NGOs.
2. Expand the target groups to include Men Having Sex with Men. In cities with significant tourism, such as Agra, programs to prevent HIV/AIDS should include staff of small hotels and guest houses and transport staff, such as taxi and auto-rickshaw drivers.
3. Improve monitoring and evaluation and supportive supervision by CARE staff.

USAID/India should:

1. Continue investment in HIV/AIDS prevention among HRBG in low prevalence states in order to arrest the HIV/AIDS epidemic in India.

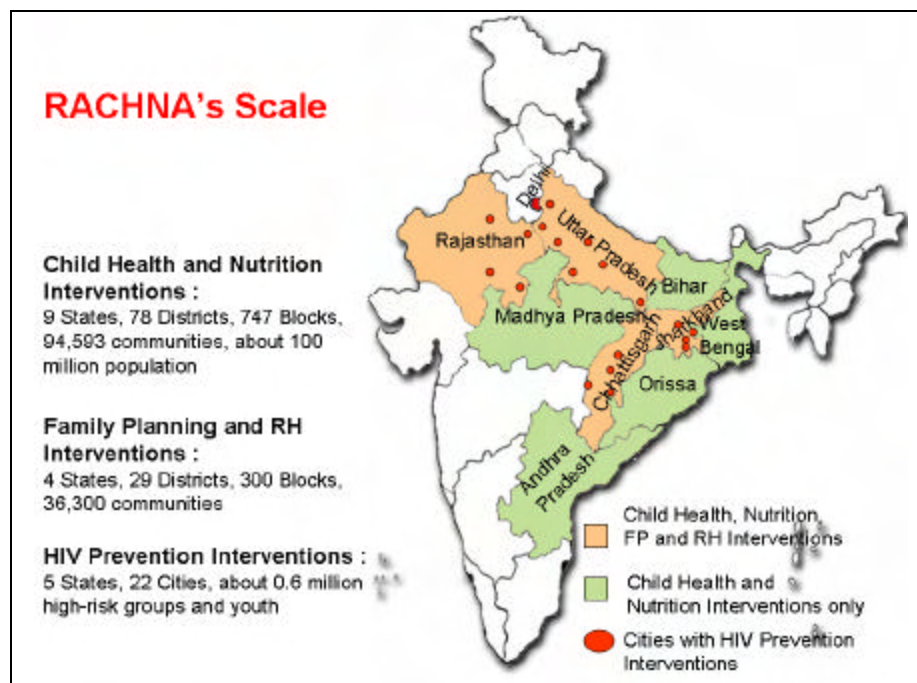
Government of India National AIDS Control Program

1. Since the CARE Urban *Chayan* HIV/AIDS prevention program has demonstrated successful improvements in knowledge, attitudes and practices among High Risk Behavior Groups and Youth and the lessons from it are too good to waste, scaling up the project to other similar groups would be of benefit to the national effort to contain the epidemic. One possibility would be to use CARE as a nodal organization to transfer skills to and oversee the work of other contracted local NGOs.
2. The excellent Peer Educators trained by CARE should be used as trainers or motivators in other HIV/AIDS prevention projects.

INTRODUCTION

1. Background

The Reproductive and Child Health, Nutrition and HIV/AIDS Program (RACHNA) is a five-year umbrella program of CARE India, supported by USAID, which began October 1, 2001. It consists of the Integrated Nutrition and Health Project (INHP II) which aims to achieve sustainable improvements in health and nutritional status of women and children, and the *Chayan* project which aims to increase family planning use (Rural *Chayan*) and prevent HIV/AIDS for urban High Risk Behavior Groups (HRBG-Truckers, Female Sex Workers and Migrants) and Youth (Urban *Chayan*). CARE implements RACHNA in partnership with and in support of the Government of India's (GOI) Ministry of Women and Child Development (MOWCD) Integrated Child Development Services (ICDS) Scheme, the Ministry of Health and Family Welfare (MOHFW) Reproductive and Child Health Program (RCH), and the National AIDS Control Organization (NACO) National AIDS Control Program (NACP). Through RACHNA CARE works to demonstrate and replicate improved service delivery and behavior change approaches for a set of interventions of proven clinical efficacy, through strengthening GOI systems and programs and empowering communities. Commensurate with India's incredible size as the second most populous nation in the world and home to more than one billion people, **the scale of RACHNA is also enormous, making it the largest program of its type in the world.** The following map depicts RACHNA's scale in the nine program states of Andhra Pradesh (AP), Bihar (BI), Chhattisgarh (CG), Jharkhand (JH), Madhya Pradesh (MP), Orissa (OR), Rajasthan (RA), Uttar Pradesh (UP), and West Bengal (WB).



For the RACHNA program CARE received resources through March 31, 2006 totaling more than \$152 million from various sources as shown in Table 1, the largest of which were food aid-related (Title II). All resources were from USAID, except the GOI and CARE contributions. When the last monetization sales are completed the total RACHNA budget is expected to exceed \$160 million.

Table 1 Resources Received for 5-Year RACHNA Program as of March 31, 2006

Title II –Related Resources (U.S. \$) for Life of Activity from 10/1/01-9/30/06		Other Resources (U.S. \$) for Life of Activity from 10/1/01-10/31/06	
Food for Direct Distribution	87,136,259	Population Funds	6,655,000
Monetization sale proceeds + Interest*	31,667,188 + 689,137	AIDS Funds	7,385,170
Farmbill-202e	2,500,000	Child Survival and other Health Funds	12,559,652
Government of India	3,578,421	CARE Contribution	500,000
Sub-Total	125,571,005	Sub-Total	27,099,822
Grand Total			152,670,887

* This is an underestimate because one monetization is in process and another is expected in August 2006. Total sale proceeds generated will increase by approximately \$7 million before September 30, 2006.

2. The Final Evaluation

Prior to the end of the program which is September 30, 2006 for Title II-related resources and October 31, 2006 for other resources, CARE has undertaken a comprehensive final evaluation, of which this team's independent final evaluation is part, to assess whether RACHNA achieved the committed results in each of the impact areas of INHP II and *Chayan*. An independent, external team hired by CARE and USAID conducted this final evaluation of the RACHNA program in India in April 2006 and sought to answer key questions proposed by CARE and USAID concerning: (a) results and contributory factors, (b) policy/program impact, (c) program management, (d) monitoring and evaluation, (e) program graduation for INHP only, and (f) future programming. The team drew its findings from review of numerous documents on the program (see Annex 1), interviews with key informants and stakeholders, and field visits for first-hand observation and interviews with program functionaries and beneficiaries at community, block, district and state level. Representatives of the MOWCD: Mr. Saroj Adhikari and Mr. A.K. Goel, as well as Dr. Sangeeta Saxena from the MOHFW, participated in the evaluation.

For assessment of the impact of RACHNA the team relied primarily on draft findings on the CARE program from **three quantitative data sources**: 1) Baseline and Endline pre-test, post-test, representative household surveys to measure program-wide impact of INHP II, Rural *Chayan* and Urban *Chayan* Youth interventions, referred to hereafter as **B-E** data, 2) Behavior Surveillance Surveys to measure HIV prevention outcomes in HRBG program-wide in urban *Chayan*, referred to hereafter as **BSS** data, and 3) Evaluation Research studies with pre-test, post-test, controlled, quasi-experimental design on newborn health and survival in one intervention vs. a comparison district in Uttar Pradesh (UP) and on nutrition interventions in one intervention vs. a comparison district in both UP and Andhra Pradesh (AP) states, referred

to hereafter as **ER** data (12-14). Additional quantitative data on INHP II health and nutrition outcomes from three annual rapid assessments conducted between 2003 and 2005 in one panel district each in eight of the RACHNA states were used by the team as a secondary source, and referred to hereafter as **RAPS** data. The team used a triangulation approach to findings present in multiple quantitative data sources on the impact of INHP II, with any changes seen in more than one data source deemed more significant than if seen in only one source. The team also agreed on criteria for determining the significance of changes from the **ER** and **RAPS** data sources which are not representative of the entire RACHNA program. The final evaluation team acknowledges that CARE's evaluation design, as agreed with USAID, did not include comparison groups, except in the case of the **ER** studies, because they were implementing interventions whose clinical efficacy had already been established in research trials by others, and it was not feasible or cost-effective to include comparison groups in evaluation surveys of such large programs. However, because there were no comparison groups, it is difficult to determine how much of the impact seen in the **B-E**, **RAPS**, and **BSS** is due only to the RACHNA interventions, versus secular changes or impact of the basic ICDS, RCH, NACP and other programs without CARE's added inputs. Nevertheless, the final evaluation team believes that most of the large changes seen over baseline in the health and nutrition indicators were likely due to improvements resulting from RACHNA, the largest program addressed to strengthening ICDS and RCH and preventing HIV/AIDS in the geographic areas and target groups covered.

The team made its own first-hand review of RACHNA program processes, but benefited from the draft findings of an external, independent **qualitative assessment** of key RACHNA program processes from district to community level and their links to results, conducted in March 2006 (26). See Annex 2 for more details on the Methodology followed in the final evaluation, the data sources used and criteria for determining their significance. The findings of the final evaluation of the RACHNA Program will now be presented separately in Part I for Rural RACHNA including INHP II and the well integrated *Chayan* reproductive health interventions, and in Part II for Urban RACHNA also known as urban *Chayan* HIV/AIDS Prevention.

PART I: FINAL EVALUATION OF RURAL RACHNA PROGRAM

I. Description of Rural RACHNA Program

A. *Description of Rural RACHNA Program and GOI Programs it Supports*

The origins of INHP II trace back to 1984 when CARE, with USAID support, started direct Title II food distribution for supplementary feeding in the GOI's ICDS program, the world's largest community-based nutrition and early childhood development program for vulnerable women and preschool children. From October 1996-September 2001, CARE, the GOI and USAID initiated the first five-year phase of the Integrated Nutrition and Health Project (INHP I), which augmented the Title II direct food distribution support to ICDS, with additional Title II monetization support for improving maternal and child health and nutrition services, behaviors and outcomes. The health services as well as micronutrient supplements for ICDS beneficiaries come from the MOHFW, with their current program addressing these needs known as the Reproductive and Child Health program (RCH). Increasing convergence between ICDS and RCH has been a major accomplishment of CARE in INHP. The second five-year phase, INHP II, from October 2001-September 2006, is the subject of this final evaluation, along with *Chayan*. The INHP II is implemented in 94,593 existing ICDS catchment areas known as anganwadi centers (AWCs) in nine states, or roughly 10% of all AWCs in India, mainly in communities served by INHP I.¹ Title II food aid reaches 6.6 million pregnant and lactating women and children up to six years, consistent with ICDS guidelines, but numbers of women and children reached for other services vary by the intervention. For the first time in INHP II, CARE received both Title II-related resources and Child Survival and other Health Funds from USAID (Table 1). Thus, in INHP II CARE had more funds available per anganwadi to strengthen and scale-up interventions in the existing ICDS and RCH programs, adding newborn care and Vitamin A supplementation, in addition to those already stressed, i.e. supplementary feeding, antenatal care (Check-ups, Iron Folic Acid supplementation, Tetanus Toxoid immunization, pregnancy diet and rest practices, and birth preparedness), infant and young child feeding (IYCF) practices, and childhood immunization. A key feature of INHP II is District Teams of CARE staff and sub-contracting of local NGOs to manage and provide technical assistance for local implementation. Community mobilization, working with Community-based Organizations and Panchayati Raj Institutions, is a central strategy.

The second major component of the Rural RACHNA Program is *Chayan*. In July 2002, USAID approved CARE's proposal for a six-year rural reproductive health and urban HIV/AIDS prevention project, called "*Chayan*" (meaning Choices) for 45 districts and 417 blocks with \$10.5 million in Population Funds for the rural component and \$10.5 million in AIDS funds for the urban component. Under the RACHNA Program umbrella, Rural *Chayan* planned to integrate family planning services for birth spacing and prevention and management of Reproductive Tract and Sexually Transmitted Infections (RTI/STI) into the package of services CARE sought to strengthen through ICDS and RCH programs in all INHP districts in four of the nine INHP states, i.e. CG, JH, RA and UP. In 2003 the rural *Chayan* coverage planned was reduced to 29 districts, 300 blocks and 36,300 communities in the four states to

¹ The state of Bihar was in INHP I but dropped from the CARE program in 2000 upon bifurcation of Bihar to create two new states of Bihar and Jharkhand. At the state government's request Bihar re-entered INHP II in 2003. Of the 747 ICDS blocks CARE assists, 32 are urban.

accommodate an approximately 10% annual budget cut in USAID Population Funds. While these changes were certainly disruptive, CARE's strategic decision to reduce the geographic area covered resulted in a higher budget per block than originally planned and served to mitigate the impact of the budget cut. Several months of implementation time were lost in the initial uncertainty and redeployment of staff. The original end date for *Chayan* of June 30, 2008 was synchronized by CARE and USAID in 2004 with the September 30, 2006 end date for INHP II under the RACHNA umbrella and later extended to October 31, 2006 to allow more time to disburse RACHNA funds. Targets and milestones were re-negotiated to accommodate the shortened timeframe.

CARE placed a major emphasis in the rural RACHNA program on assisting the primary GOI Implementers to optimize the health and nutrition outcomes and impact of the existing ICDS and RCH programs by building their capacity and strengthening key processes and systems. Both of these GOI programs have significant design and implementation limitations for achieving the desired health and nutrition results and, thus, presented considerable challenges and obstacles to CARE for achieving the goals of RACHNA. See References 20, 27, 29, and 30 in Annex 1 for a good discussion of the obstacles in ICDS and India's public health services and creative ideas for overcoming them, most importantly CARE's own proposal (27) to MOWCD for improving ICDS in the next 11th Five-Year Plan based on the RACHNA experience. The latter is a good example of the major effort made by CARE to influence national program policies.

Best practices. The strategy in INHP II of working first in 10% of the AWCs in each block as Demonstration Sites with intensive NGO involvement and then replication to the rest relied on scaling-up four "best practices" discovered by CARE in INHP I as potential solutions to problems faced by ICDS and RCH in achieving their health and nutrition objectives. These are: Nutrition and Health Days (NHD), Change Agents (CA) and Reproductive Health Change Agents (RHCA in rural *Chayan*), Community-Based Monitoring Systems (CBMS), and Block-Level Resource Mapping (BLRM). Based on RAPS data, its own internal reflections and the Mid-Term Review (MTR) in late 2004, CARE determined that none of the "best practices" except NHDs were contributing significantly to the desired health and nutrition outcomes, and the feasibility of their scale-up through government systems, especially with the remaining time and resources available, were also in doubt.

Thus, after much learning in the first three years, two thirds of the way through RACHNA at the beginning of 2005, CARE made a paradigm shift away from three of the four "best practices" except NHDs. Instead, post-MTR, CARE introduced and scaled-up new tools for improving home visits by AWWs, supportive supervision by ICDS supervisors, monthly sector meetings of ICDS supervisors with the 20-25 anganwadi workers (AWW) they supervise for in-service training and focus on improved home visits and behavior change skills. NGOs provided block-wide support and supervision vs. working only in Demonstration Sites. Remaining needs for two-day training workshops for existing CAs, AWWs, Auxiliary Nurse Midwives (ANM), and ICDS Supervisors in Demonstration and Replication Sites were completed by mid-2005. A new approach of monthly 1-2 hour in-service training sessions for AWWs, ANMs and their supervisors at sector meetings was introduced. Facilitation and organization of these sessions was done by NGOs and CARE District Teams who worked to train ICDS supervisors to take

over this role. The above is referred to as the **post-MTR approach**. Similar refinements were made in the rural *Chayan* program. No further recruitment or training of RHCAs took place post-MTR, but two day training workshops for AWWs and ANMs continued and CARE expanded the role of existing CAs to also promote reproductive health interventions and continued to work with existing RHCAs.

Capacity building of block and sector level functionaries and Block Level Advisory Committees had happened earlier in the RACHNA program and was given a boost post-MTR. CARE maintained an unwavering commitment to the principles of convergence, problem identification and resolution through Block Level Advisory Committees, and the catchment area approach to reduce social exclusion throughout the program, and refined its strategy as it learned through implementation what tactics were more effective. CARE's need to deal with serious threats to the program such as the major reduction in Title II imports and an urgent transition of these responsibilities to the state governments, as well as reduced funding from USAID discussed later in the report explain some of the delays in making mid-course corrections.

Coverage and Scale of RACHNA Program: By the April 2006 final evaluation CARE categorized the status of the approximately 95,000 AWCs as 10% demonstration, 25% replication, and 65% other for both INHP II and rural *Chayan*. Universal coverage of CARE assistance for supplementary feeding and food monitoring was achieved. By December 2005, Nutrition and Health Days were held in 54% of all the AWCs and 48% had Change Agents against the September 2006 targets of 60% and 50% respectively.² Thus RACHNA's "best practices" reached around half the universe of AWCs. As part of CARE's post-MTR scale-up approach from 2005 onwards, the Home Visit Tool had reached 73% of AWWs in the last 4-8 months.

B. Effectiveness of Design and Evolution of Rural RACHNA for Achieving Results

CARE prepared an effective design for Rural RACHNA building on its successes, experiential learning at community level and "best practices" identified in INHP I. In its Development Activity Proposal (DAP) to USAID for INHP II CARE identified the right interventions and stages in the life cycle to focus on to achieve its goal of reducing infant mortality and childhood malnutrition (39). Its design of working through and strengthening the GOI ICDS and RCH programs was very appropriate vs. setting up parallel delivery systems that would not be replicable. Furthermore, CARE recognized that increasing convergence between these two programs would be critical as health outcomes would not improve without a focus on underlying malnutrition and similarly, since infections are a major determinant of malnutrition, increasing health services for ICDS beneficiaries would be critical. The ICDS infrastructure offered an ideal platform for increasing use of health services in the village, especially through CARE's innovation, Nutrition and Health Days.

² The "percentage of AWCs conducting at least one NHD last month with THR and immunization and/or antenatal check-up," is a key management indicator and measure of scale-up for CARE. It increased from 36% at baseline to 54% at the end of the first quarter of FY 06. Although this is below the Life of Activity target of 60%, this is still a substantial achievement, especially considering the number of challenges that CARE faced in advancing this approach in all nine RACHNA states.

CARE refined and re-oriented the RACHNA design to respond well to major negative factors in the external environment, most notably the GOI's decision in July 2002, early in the RACHNA program, to prohibit further import of Title II donated Corn Soy Blend (CSB worth more than \$200 million) in the CARE program due to concerns about bio-engineered foods. Uncertainty as a result of this decision continued for nearly a year until the DAP amendment was negotiated and approved. It is remarkable that CARE kept RACHNA implementation on track as well as it did during this difficult time. As described later in this report CARE turned the elimination of CSB imports into an opportunity to assist state governments to transition successfully to locally procured food grains for the ICDS program, which was a major accomplishment unforeseen in RACHNA's design.

Another example of CARE successfully seizing opportunities was the design and integration of rural *Chayan* with the INHP platform when resources became available to add a birth spacing component, which is another key intervention for achieving the infant mortality and malnutrition reduction goals of INHP II. Advice on birth spacing was well integrated into CARE's behavior change strategy and capacity building across the key phases of the life cycle, made part of NHDs and also a focus for improved supervision and home visits, at little additional cost. The AWC with its target group of children 0-6 years and their mothers is an ideal location for offering birth spacing. CARE's rapport in the villages because of other health and nutrition interventions made it easier to introduce birth spacing. The increased availability of contraceptives at the AWC and family planning training of AWWs as a result of rural *Chayan* is, in our opinion, a winning feature for achieving both ICDS and RCH goals. Per CARE, their involvement in family planning increased the appreciation and respect of HFW district staff for the CARE District Teams and "integration with INHP helped optimal utilization of resources in both projects."

The INHP I final evaluation had recommended that CARE reinforce INHP's nutritional focus and specifically to "review plans for INHP to balance and sequence nutrition and health interventions, ensuring that the nutritional focus is appropriately achieved." In the team's review of the original DAP for INHP II we did not find a strong nutrition focus, although nutrition interventions were certainly planned as part of the integrated package. The fact that the DAP for INHP II was written and submitted for approval several months before the INHP I evaluation explains why the design may not have had the reinforced nutrition focus that was recommended. In the future it would be better to sequence the design and approval of follow-on programs for after the results of the evaluation of the previous program are available to inform the design. While CARE clearly worked diligently to implement a number of important nutrition components in INHP II, the strategy it designed for improving infant and young child feeding practices was ineffective because it: (1) had little impact on complementary feeding practices in the critical time period from 6-23 months, (2) was not sequenced well because it wasn't introduced until the second half of the project, and (3) did not focus adequately on improving counseling skills of workers for achieving effective behavior change. CARE also made a decision in INHP II that the ICDS norm of weighing children and growth promotion would contribute little to RACHNA results and therefore did not invest in strengthening it.³

³ CARE noted that strengthening ICDS growth promotion would have entailed using RACHNA resources to address weaknesses such as lack of weighing scales and growth charts, lack of skilled AWWs, unreliable growth/weight information from ICDS and focus of ICDS on treating severe malnutrition rather than on prevention of growth faltering. CARE chose to test a cheaper and easier approach to improving IYCF practices that did not prove effective. The final review team thinks

The final evaluation team thinks CARE missed an opportunity to complement the general IYCF messages that RACHNA addressed to all mothers at key stages in the life cycle with more specific counseling and feedback linked to individual children's growth. In other programs in India and elsewhere this link between weighing and specific counseling has been found to be an effective IYCF behavior change strategy for preventing growth faltering. If done well, growth promotion provides mothers with tangible evidence and feedback through information on their children's monthly weight gain to know whether they are feeding them appropriately and this reinforces appropriate behavior. Lack of involvement with strengthening routine weighing sessions to improve the availability of reliable weight data also meant CARE had no monitoring data on nutritional status to use for managing RACHNA.

The RAPS data provided an invaluable source of information on RACHNA's impact on key health and nutrition outcomes that became available from the middle of RACHNA onwards as planned. This filled a key gap for decision-making in the CARE Health Management Information System (HMIS) and management indicators, which focus on outputs and not on outcomes. For example, CARE made excellent use of the RAPS data which showed that Change Agents weren't making home visits as expected to plan its 2005 paradigm shift away from recruiting and training more Change Agents to instead introduce tools to strengthen AWW home visits and supervision. The final evaluation team thought the post-MTR approach held great promise, but that there would be inadequate time to introduce and test tools adequately before RACHNA's end. While earlier in the program in 2003 the RACHNA staff had conducted formative research on feeding behaviors and their determinants to inform the design of communication materials, due to RAPS data, CARE sharpened the focus on changing poor complementary feeding behaviors in the last years of the program. The final evaluation team recommends that future designs and project monitoring systems be more closely linked to solid evidence of the impact of interventions and approaches on health and nutrition outcomes. Precious implementation time was lost not monitoring health and nutrition outcomes in RACHNA, and not validating critical design assumptions until late in the program via RAPS, thus delaying introduction of much needed corrective strategies.

The final evaluation also concluded that CARE probably spent too long working intensively on the 10% Demonstration Sites which contributed little added innovation beyond what had already been learned about the "best practices" in INHP I. The paradigm shift in the last years of the program to scaling up, on a large scale, through existing ICDS systems would probably have been a wise and feasible strategy to have taken from the outset or much earlier in the project that would have resulted in much greater coverage of RACHNA improvements over the universe of nearly 95,000 AWCs. The added value and replicability of the local NGOs that CARE contracted are unclear, versus the more cost-effective alternative of having ICDS and RCH functionaries carry out these responsibilities as part of their duties. Whether or not NGOs are essential to optimal functioning of ICDS and RCH was a key question asked by MOWCD and MOFHW during the final evaluation for which CARE does not yet have the answer, but should seek to document its experiences for policy-makers, given the cost implications.

RACHNA resources were adequate for strengthening growth promotion, but tradeoffs would have been needed in funds spent on other approaches. Most countries implementing growth promotion programs do not have the benefit of a national program like ICDS with its large government investment, infrastructure and mandate for growth promotion. In RACHNA, CARE District Teams and full-time NGO support to complement and assist government functionaries were a potential added advantage for strengthening growth promotion that other similar programs in India and elsewhere have not had.

Furthermore, the RACHNA design relied on CARE District Teams which provided invaluable local oversight and problem-solving services for ICDS and RCH. However, given the cost of such teams, similar unanswered questions arise as to what is the minimum CARE staff presence needed at district level to truly strengthen systems and empower communities while complementing the roles and responsibilities of GOI functionaries.

II. Assessment of Impact of Rural RACHNA Program

In Sections A. and B. below findings will be presented on RACHNA's impact on malnutrition and other health and nutrition outcomes using quantitative data from the sources mentioned previously and in Annex 2. The eleven Performance Indicators that were agreed between CARE and USAID as key measures of the INHP II results to be achieved will be highlighted in bold and the Performance Indicator Table is found in Annex 5. The Indicator Performance Tracking Table for *Chayan* is also found in Annex 5, and considered by CARE and USAID to be illustrative and not binding given the shortened timeframe of *Chayan*. Two additional tables found in Annex 5 show significant changes over time in RACHNA intervention districts versus comparison districts in the **ER** nutrition studies in both AP and UP and significant changes in the **RAPS** Panel Districts. Reduction in the infant mortality rate (IMR) is an expected impact of INHP II, via improved health and nutrition outcomes, but it was never planned to measure it. For **B-E** data the five-year changes in the weighted average program-wide estimates will be presented.

A. Overall Impact in Reducing Childhood Malnutrition The **B-E** data showed a reduction in malnutrition from 61% to 53% as measured by the **Percent of children 12-23 months whose weight for age is more than two standard deviations below the median weight achieved by children of that age (% malnourished)**. This reduction is nearly twice that seen in the all India rural average for this indicator between the National Family Health Surveys (NHFS) conducted in 1992/93 and 1998/99 suggesting that nutritional status in the RACHNA program areas was significantly better due to the program interventions and not solely due to secular changes. No significant reductions were seen in this indicator of malnutrition in the controlled **ER** studies, perhaps because the measures were taken only two years apart. However, a significant deterioration in the average weight for age z-score of children 12-17 months was seen in both the UP and AP intervention districts in the **ER** studies, for which some explanations are expected by August 2006 from further multivariate analyses of these data in a report by the investigators.

B. Assessment of Health and Nutrition Outcomes and related Outputs

1. Maternal and Child Health

Several important maternal and child health (MCH) indicators have tended to improve across the life of the program. The MCH outcomes targeted by INHP II include several requiring functionality of the service delivery system as well as seeking and acceptance of services by mothers and families (such as immunization and antenatal check-ups), along with others that are primarily dependent on changes in key behaviors.

Antenatal Care and Practices The results of RACHNA in improving coverage of antenatal check-ups are mixed. Significant improvement was seen in the receipt of antenatal check-ups by the intervention groups in the **ER** in AP and UP, including 3+ visits and home visits by AWWs, ANMs, and CAs. However, the **RAPS** data did not show significant improvement in receipt of antenatal check-ups. **Receipt of 2+ doses of Tetanus Toxoid immunization by pregnant women** was high at 78% at baseline and increased to 85% in the endline survey (**B-E**). Coverage improved significantly in the intervention group vs. the comparison group in the **ER** in UP, but the **RAPS** data showed no significant improvement. Findings on nutrition services in pregnancy will be discussed in a subsequent section.

Lack of a baseline precludes evaluating changes in the proportion of **women making birth plans in the third trimester of their last pregnancy**, but at endline in **B-E** 13% had plans including savings plus identification of a facility and trained provider in case of emergency. The **ER** in UP shows a significant improvement in the percent of recently delivered women who had taken birth planning steps including saving money, arranging transport and obtaining a delivery kit in the intervention area vs. the comparison group. The RACHNA program did not intend to increase the percent of deliveries by trained attendants or in institutions, but it is interesting to note that there were no significant changes in the place of delivery or birth attendant in the **RAPS** or the **ER** with most women continuing to deliver at home with untrained birth attendants. However, in some sites visited, it appeared that the government's cash incentive scheme promoting institutional deliveries is having an effect.

Discussion: Together, these findings suggest that the effect of the program on antenatal check-ups and practices was limited. The possibility that effectiveness might be increased by the post-MTR approach deserves further evaluation. There are other important limitations to the program's strategy and potential effect. It is not clear that the AWW is viewed within communities as a credible source of antenatal advice. In addition, the antenatal check-ups conducted during NHDs reportedly were usually incomplete, lacking blood pressure measurement, abdominal examination, and other usual procedures – in many cases, lack of privacy and facilities in an AWC (if there was one) made antenatal contacts by the ANM very cursory. In addition, although there was training of traditional birth attendants (*dais*) as well as ANMs and AWWs in basic antenatal care (not obstetric management), there is no information on the actual practices of *dais*, who still deliver the majority of babies in many communities.

Newborn Care and Practices One area of substantial improvement across the program was practice of the “5 cleans” at delivery. The **RAPS** and **ER** data show significant improvements in these and in the percent of deliveries at which nothing was applied to the cord or umbilicus. The **ER** documented this to be an area of increased attention by ANMs and AWWs. Delivery kits did not appear to play a major role in this practice, since few families obtained them in the **ER** communities. Knowledgeable informants point out that there is a general increase of awareness of these “5 cleans;” so attribution of this change to INHP inputs alone is probably not valid, though it is probable that increased AWW and ANM contacts during pregnancy in RACHNA, and advice on the “5 cleans” contributed significantly. The practice of delayed bathing of the newborn received substantial attention in the early phase of INHP II and shows substantial positive change in the **RAPS**, but not in the **ER**. As noted in the MTR, recognizing the lack of evidence that this practice was meaningfully related to reduction of neonatal

hypothermia, the program's focus shifted to promoting immediate drying and wrapping of the newborn. However, the change in bathing behavior is further testimony to the ability of the program inputs to modify newborn care behaviors. In the **B-E** endline survey, **immediate drying and wrapping** reached a prevalence of 84%, but lack of a baseline precludes evaluating changes. Significant improvement in the practice of drying and wrapping the baby was seen in the **ER** in UP. However, this indicator did not improve significantly in the **RAPS**.

Other key essential newborn care practices include **putting the newborn to the breast within the first hour after birth**, which by the endline survey reached a high prevalence of 80%, but lack of baseline data preclude evaluating changes. However, the **ER** in AP and UP as well as the **RAPS** show major improvements in early initiation of breastfeeding in the first hour and not giving prelacteal feeds associated with program inputs. These are beneficial practices both for the newborn (who receives colostrum, the important immunity-transferring early milk that has often been discarded in the past) and the mother (since it promotes contraction of the uterus, reducing the incidence of excessive post-partum bleeding).

The newborn **ER** in UP found significant improvements in the rate of home visits by ANMs, AWWs, and CAs in the first day, 3 days, and within one week after delivery with the greatest success in the rate of home visitation by the AWW which was much higher than the visitation rate by the other workers. The **ER** in AP also documented significant improvements for AWW visits within one week of delivery but not for ANMs or CAs in the intervention vs. the comparison group. The **RAPS** also found significant improvement in percent of mothers with infants 0-5 months visited at home on the day of birth by the AWW or ANM but not by CAs, and in advice about breastfeeding received during these visits in the first week after delivery. In the **ER** in both AP and UP, there were significant improvements in the advice given during ANM and AWW home visits on breastfeeding and complementary feeding in intervention vs. comparison areas, but not in advice on child health.

To gauge the overall impact of the improved newborn care practices in UP, neonatal mortality was measured. However, the **ER** did not detect any improvement in newborn survival, although in more controlled settings newborn care practices such as those promoted in RACHNA have been associated with reduced neonatal mortality. Potential explanations include the possibility that the specific causes of newborn mortality in the study population were not susceptible to these general preventive interventions (such as prematurity and low birth weight); verbal autopsy data are available and should be reviewed. The study also demonstrated that the behavior change was progressive, and thus its effect was more likely to come later in the study period. There was also potential over-reporting of some positive behaviors and the possibility of low validity and imprecision of some of the indicators measured in the **ER**.

Discussion: RACHNA inputs appear to have generated important improvements in routine newborn care at program scale. This was a new area for CARE and produced some of the most exciting MCH results. Program inputs appear to be associated with substantial improvements in many of the practices that the global public health community has identified as "Essential Newborn Care." This demonstration is significant for India, which has recognized the need to address newborn care and reduce newborn mortality to meet its IMR reduction goals. However,

this experience also suggests that more needs to be known about the contribution of these care practices to mortality reduction; for major impact, they will likely need to be coupled to systematic improvement in care of low birth weight infants and to care-seeking and care for serious newborn infections. In a high neonatal mortality environment, the expected effect of these preventive interventions (inferred from the recent *Lancet* analyses (38)) would be modest; however, on a population basis, their contribution could be important.

Childhood Immunization The B-E data show a very impressive increase in **measles immunization coverage of children 12-23 months of age as measured by card or recall** which nearly doubled from 37% at baseline to 71% at endline. This is an outstanding result very likely due to RACHNA program efforts. Significantly improved measles immunization coverage was also seen in the **RAPS** for *card only* but not for *card and recall*. There was also significant improvement in the percentages of children 12-23 months who received BCG, who were completely immunized and whose mothers possessed a vaccination card in the intervention districts in the **ER** studies. The **RAPS** data also show significant improvement in fully immunized children 12-23 months by *card only*, but not for *card and recall*. However, no significant improvements were seen in children 12-23 months in the **RAPS** for receipt or retention of immunization cards, nor for coverage with BCG or DPT3 vaccine.

Discussion: By all accounts the success of the RACHNA program in greatly increasing childhood immunization coverage is due to NHDs; this is the consensus among state and district CARE, MOHFW, and ICDS officials. This is consistent with the results of small, program-based, post-MTR studies in RA non-panel districts, which found that roughly 80% of children in the study areas received their last immunization at the AWC. The benefits of convergence of the ANM and AWW to coordinate immunization and other services in communities promoted in RACHNA have become widely accepted in the CARE areas and more recently beyond those areas in RACHNA states. As long as the take-home food ration is being distributed, the logic of the NHD seems solid. However, as noted in previous evaluations, immunization coverage via NHDs is substantially affected by both supply and demand factors. Many supply side factors – like vaccine availability and competing Pulse Polio activities – are beyond the reach of CARE. Shortages of DPT and measles vaccines still are reported in some states. Other factors, however – like ANM scheduling and logistics – can often be resolved through district and block level convergence processes which CARE has helped strengthen.

The resolution of problems linked to low immunization coverage is likely to be facilitated by recent government actions which RACHNA proactively supports. These include increased political attention to routine immunization coverage; the establishment of “immunization cells,” in some cases with seconded WHO officers; and the availability of flexible funding through the MOHFW. Some low coverage states (such as JH and UP) have held semi-annual “catch-up months.” RACHNA played a central role in the design, implementation and monitoring of these efforts along with the USAID Micronutrient Operations Strategy and Technology (MOST) Project and UNICEF. Operationalizing such government actions has been a priority for RACHNA assistance. At the national level and in many states, districts, and blocks, CARE staff have made useful contributions through participation in planning or micro-planning.

The relationship between factors at the community level and the effectiveness of the NHD strategy in reaching eligible children with immunization are increasingly clear. Such factors include the organizational capability of the AWW and her coordination with the ANM. In some places, AWWs reportedly have difficulty systematically identifying children requiring immunization; one step taken by some ANMs has been to prepare a “due list” for the AWW for the next immunization day. In other areas, like selected districts of UP, CARE has supported the development of additional tracking tools to identify children needing immunization. However, these approaches, though seemingly simple and logical, are not being implemented systematically across the program. There are also reports that some families are either not available or not willing to come for immunization when offered, despite reminders by the AWW or CAs. There are also still hamlets where ICDS, and thus the AWW and the NHD, do not reach. These local operational factors, combined with higher level systemic factors, appear to limit the effectiveness of NHDs, which theoretically should be able to reach all the approximately 25-30 under one year old children that typically require immunization in a rural village.

As a note from one field visit, the team would like to mention that it saw cases of severe malnutrition as a consequence of recent measles infection in children 12-23 months in two different villages in Sitapur district in UP. When reported to the health officials, they stated that measles immunization coverage of children under one year was 100%, but that they had only recently been authorized to do catch-up measles immunization for children over one year who were missed as infants.

2. Maternal and Child Nutrition

The RACHNA Program sought to improve maternal and child nutrition both through increasing the use of the services of supplementary feeding and micronutrient supplements, as well as through behavior change communication to improve infant and young child feeding (IYCF) practices. CARE had a very appropriate focus on pregnant and lactating women and children under two years of age and their mothers in the RACHNA program. It worked effectively to engage the ICDS and RCH programs to focus on these most vulnerable groups, noting well that these are the periods when most damage of malnutrition occurs, which is often irreversible in older children. CARE advocated effectively at all levels for greater attention to these key ages and stages in the life cycle, which has been sorely missing in ICDS, which places higher priority on its preschool component for children 3-6 years of age. As will be discussed below, the program had considerable success with increasing the use of supplementation services, using mainly the NHD strategy. However, RACHNA met with less success in improving the difficult to change IYCF practices, especially complementary feeding. The team attributes this in part to continued weak counseling skills of AWWs and ANMs and the need for improved home visits.

Infant and Young Child Feeding Practices The program’s impressive success in improving early initiation of exclusive breastfeeding as part of essential newborn care was reported above. Lack of baseline data in the **B-E** preclude evaluating changes in the **percent of children under 24 months of age who were exclusively breastfed till 6 months post-partum**, but only 44% of infants were found to be exclusively breastfed in the endline. There was no significant improvement in this exclusive breastfeeding indicator in the ER in AP and UP, but there was

improvement in the converse measure of reduction in the percent of mothers introducing complementary foods and liquids from 0-5 months. The RAPS data, however, do show significant improvements in both current exclusive breastfeeding rates and not starting liquids or solids until 6 months among mothers of children 0-6 months.

For Complementary Feeding the performance indicator is the **percent of infants, in program catchment area, who received breast milk and solid mushy foods at 6-9 months of age** and the **B-E** data show an impressive improvement from 49% at baseline to 78% at endline. However neither the **ER** nor the **RAPS** data show a significant increase in this indicator. In addition to solid foods introduced by the right age, RACHNA's impact on improving the other key appropriate complementary feeding practices was disappointing. The percent of mothers who gave at least half the recommended quantity of semi-solids to children 12-23 months showed no significant improvement in the **ER** or the **RAPS**. Only 5-9% of mothers fed at least half the recommended quantity in the five states of CG, JH, MP, RA, and UP (the majority)!⁴ It is disturbing that this indicator is defined as **half** the recommended quantity, just because the prevalence of mothers doing so is so low. The **full** recommended quantity, **not half**, is the minimum that children need to consume to grow normally. The prevalences found independently in UP and AP in the **ER** and in the **RAPS** studies are very similar, strengthening the final evaluation team's confidence in these data. While the **ER** also shows no significant improvement in the 6-11 months age group in the percent of mothers who gave at least half the recommended quantity of semi-solids to children, the **RAPS** data do show improvement in this younger age group, which is an encouraging start, but still prevalences are very low at 10-22% in the 5 states mentioned earlier. Neither the **ER** nor the **RAPS** show significant improvements in mothers including at least three food groups, nor adding oil to the diet of their children 6-23 months. The **ER** data also showed no significant improvement in feeding 6-23 months children with adequate frequency, but the **RAPS** did. Lastly, the **ER** study found that <5% of children 12-23 months had consumed any of the ICDS food rations in the past 24 hours.

Nutrition messages in RACHNA included feeding the sick child during and after illness which is critical to reducing malnutrition in India where children are frequently ill with diarrhea and other infections much of the time. However, there was no significant improvement in these behaviors in the **ER**. The final evaluation team was concerned to find no inclusion of messages on hand washing with soap after defecation, before eating and before feeding young children in order to prevent diarrhea in the RACHNA "Matrix of Community Behaviors and Systems Tasks Needed for Reducing Child Malnutrition and Mortality," nor in the Essential Nutrition Actions guide (21) or other job aids used to counsel mothers.

Discussion: The overall conclusion is that RACHNA BCC strategies were not effective for significantly improving infant and young child feeding practices. CARE worked with technical assistance from the Linkages Project to design a behavior change counseling approach for RACHNA, but decided that the five-day minimum training in IYCF counseling skills recommended by Linkages was not feasible and went ahead without Linkages to do a two-day training instead. Midway through the program, with technical assistance from BASICS, CARE developed the Essential Nutrition Actions (21) approach, and the guide was published in May

⁴ In RAPS R3 in the three other states the percent of mothers who gave at least half the recommended quantity of semi-solids to children 12-23 months was: in AP- 34%; in WB- 31%; and in OR-43%.

2005. The AWWs observed in the team's field visits clearly did not demonstrate adequate IYCF counseling skills during home visits. CARE explained that it deliberately chose to focus on disseminating the right information on complementary feeding quantities and quality to every mother first, relying on whatever communication skills the AWWs and ANMs already possessed to deliver those general messages, rather than on improving AWW's and ANM's counseling skills and developing more specific job aids. Their decision was based on the realities on the ground where in many cases not even one percent of mothers were feeding their weaning age children the right quantities of solid foods.

While the final evaluation team found the IYCF content of the RACHNA behavior change matrix mentioned above for each key stage for children 0-23 months excellent as an overall guide, it appeared very general and didactic for use in home visits. In similar nutrition programs elsewhere it has been found more effective to deliver a more specific "right" message to the "right" mother at the "right" time, by tailoring advice to the mother's actual feeding practices and the monthly weight gain of her child, and strengthening counseling skills of workers for Asking (listening), then Assessing, and lastly Agreeing on Actions or Negotiating Behavior Change with mothers. These necessary counseling steps are included in CARE's Essential Nutrition Actions (21), but did not appear to be operational at community level. CARE informed the FE team that every state in the program went through a systematic process of conducting formative research, identification of contextual barriers, prioritization of key messages, and consensus building among different players before designing the communication strategy and various materials. However, given the lack of impact, it appears that more effort is needed to fine tune the BCC strategies for improving IYCF practices. Regarding CARE's new tools to improve AWW home visits, the team noted that there needs to be better balance in prioritization of which mothers and children to visit, with more focus on visiting children 12-23 months than at present because greater focus has been placed on pregnancy, newborn and early infancy.

Supplementary Feeding Over \$87 million in Title II food was distributed through the ICDS Supplemental Nutrition Program (SNP) over the five year life of activity (LOA). This food was used primarily to support the delivery of a take home ration (THR), an idea that CARE promoted which helped the ICDS SNP better reach the most nutritionally vulnerable— pregnant and lactating women and children 6 to 36 months.⁵ Prior to the take home ration, food was only available for consumption on site at the AWC, a practice that continues for children 36 to 72 months in the ICDS pre-school education program. CARE's INHP program also pioneered the THR as an incentive to encourage people to make greater use of health and nutrition services at monthly NHDs.

The **B-E** data show that the performance targets of 65% set for **the percentage of pregnant and lactating women and children 6-23 months, in program catchment area, who received supplemental food from AWC** were met. Unfortunately, in the case of lactating women in the first 6 months postpartum questions on receipt of food from ICDS were not asked in a comparable fashion in the baseline and endline surveys and so only endline data are available.

⁵ To monitor progress over time, CARE also developed a management indicator using ICDS data that tracked changes in enrollments in the THR program for each of these three target groups on an annual basis. CARE successfully achieved the indicator.

However, the **RAPS** data show significantly improved coverage of all three of the above vulnerable groups, and the **ER** data show increased coverage of pregnant and lactating women. The program was particularly successful in increasing coverage with supplementary feeding of the most nutritionally vulnerable children 6-23 months of age from 42% at baseline to 65% at endline.⁶ However, some states performed much better than others. In OR state, for example, over 80% of pregnant and lactating women and children 6-23 months received supplemental food from the AWC in the endline, while in RA and UP, less than 50% did.

Discussion: The LOA targets were set at 65%, because only 65% of the population was eligible for supplementary food according to ICDS guidelines in force at the beginning of the project. These guidelines were translated into caps on different categories of beneficiaries at the AWC. These caps were not always well understood in communities nor consistently applied and, in addition to keeping overall enrollments down, were widely seen as excluding some eligible people. This is changing now due to several Supreme Court directives (November 2001 and April 2004) which mandated that the ICDS provide supplemental nutrition to every child under the age of six, every adolescent girl and every pregnant and lactating woman. Some states, like CG, MP and RA have encouraged the enrollment of all eligible beneficiaries as defined in the Supreme Court decree. This led to an increase in enrollment beyond the CARE targets for its management indicator (i.e., enrollment is over 100%) and helped pull up the all program average. However, other states, including UP and AP, still maintain caps.

The need to transition to locally procured food in INHP II, which began in late 2002, temporarily reduced the availability of food at AWCs (See Section F for a more detailed discussion of the food transition). This problem was relatively short-lived, however, with the nine RACHNA states able by the last quarter of 2004 to substitute local food for most of the Title II CSB that had been imported by CARE.⁷ The more lasting problem, and one that CARE staff are continuing to try to solve, is the decision made by several states, upon transition to locally procured foods, to eliminate the THR for women who are pregnant or lactating or have children 6 to 36 months. The only way these target groups can now take advantage of the SNP is to eat the food on site at the AWC each day. This reversion to on-site feeding is having a regressive effect, since it is much more difficult for those who live further from AWCs and/or those who are poorer and have to work outside the home each day to benefit from the program.

The continuing inequities in SNP access and participation in the ICDS program in general due to geographical location, social and cultural status, etc. also remain a constraint to achieving impact. More proactive measures will be needed in addition to the Supreme Court mandate to insure universal participation by those who need the program the most. Poor families, whose members have to work all day, for example, will continue to find it hard to take advantage of the food and other ICDS services if they are only made available during their working hours, a

⁶ According to data from the baseline and endline surveys, the percentage of pregnant women receiving supplemental food from the AWC remained constant at 68%.

⁷ This was the conclusion of a detailed analysis of the food transition by the International Food Policy Research Institute (IFPRI) (23). According to the IFPRI analysis, the aggregate shortfall as a percentage of requirements was lower in the last quarter of 2004 (15%) than the minimum shortfall before the transition (19% in the third quarter of 2001). This is in contrast to the transition period of January-March 2003, when the shortfall was as high as 90%. Per CARE's FY 2005 Results Report the states delivered 70% of the targeted amount of grain for ICDS.

situation that JH state is trying to deal with by testing on a pilot basis making services available in the evening.

Micronutrient Supplements Anemia is a major problem afflicting women of reproductive age and young children in India that is exacerbated during pregnancy. The ICDS works with the RCH program to provide Iron/Folic Acid (IFA) supplements to pregnant women and to young children and RACHNA worked to strengthen these services, especially through delivery at NHDs and increasing home visits and contacts in pregnancy by AWWs and ANMs. CARE very successfully took advantage of the traditional *gode bharai* ceremonies for women in the third trimester of pregnancy in JH, CH, and AP to emphasize the importance of pregnancy and birth preparedness related messages including the importance of consumption of IFA. The **B-E** data show an increase in the **percent of women, in program catchment area, delivered in past year, who received 90+ iron and folic acid tablets during pregnancy** from 39% at baseline to 50% at endline. Similar improvements were seen in the **ER** in AP and UP and in **RAPS**, which also showed improvement in consumption by pregnant women of all IFA received. The **ER** also showed increased receipt of iron tablets/syrup by children in AP and UP. However the prevalence of anemia was not significantly reduced in pregnant women or children in the **ER**.

Increasing coverage of semi-annual, high dose Vitamin A supplementation for children was also a priority for RACHNA. These supplements are provided by the RCH program in coordination with ICDS, starting with the first dose at 9 months of age along with measles vaccine. The **B-E** data show a substantial increase in the **percent of children 18-23 months who received at least two doses of Vitamin A** from a mere 5% at baseline to 27% at endline. The **ER** also shows significant improvement in Vitamin A coverage of children 12-23 months of age in AP and UP.

Discussion: Given the low hemoglobin levels and severity of anemia in Indian women it has been recommended that supplementation begin prior to pregnancy, and this would be particularly advantageous in adolescent girls. The pregnancy window is too short to reduce anemia adequately. These are policy reforms to advocate in the future with ICDS and RCH policymakers.

CARE worked effectively with USAID's MOST Project in UP and JH to organize semi-annual intensive rounds that were successful in boosting coverage with Vitamin A in both of those states. In addition, NHDs served as effective delivery points for reaching children with Vitamin A. CARE effectively used block and district level planning and reviews to solve supply chain problems and get greater focus on Vitamin A, while also using BCC strategies to increase demand for Vitamin A. Nevertheless, coverage with Vitamin A remains surprisingly low. As was mentioned under immunization, CARE has been working with ANMs in some areas to create "due lists" to identify children due for Vitamin A and assure more complete attendance for this service at NHDs, working together with the AWWs. This best practice should be scaled up.

Maternal Nutrition The RACHNA program appropriately sought to improve women's dietary practices in pregnancy by promoting consumption of one additional meal a day and a greater

variety of foods, as well as promoting taking rest 1-2 hours per day to increase weight gain and prevent low birth weight. Increased and more varied food intake was also promoted for lactating women. Significant improvements were seen in the **ER** intervention districts in the percent of mothers of children 0-23 months of age who said they ate 3 or more meals per day and who said they ate yellow/orange fruits in their last pregnancy, as well as in the percent of currently pregnant women who said they did. Significant increases in the percent of currently pregnant women reporting that they ate food from the AWC were also found in the intervention areas. However, reported consumption in pregnancy of other recommended food groups and snacks did not increase significantly in the intervention districts and neither did rest. Unfortunately there are no data in the **ER** on changes in dietary practices among lactating women. No significant improvement in pregnant and lactating women's Body Mass Index (weight for height), was seen in the **ER** intervention districts. It is regrettable that these maternal nutrition outcomes were not deemed important enough to be measured in the **RAPS** data given to the final evaluation team.

3. Family Planning and Reproductive Health Outcomes

It is important to remind the reader that the findings in this section relate only to the 300 blocks in 4 of the 9 RACHNA states where the rural *Chayan* program is implemented, namely CG, JH, RA and UP. In those states, rural *Chayan* took place in 72% of all INHP II blocks and AWCs. From July 2002 to September 2003, *Chayan* went through a long preparatory phase – recruiting and orienting staff, and stakeholders, designing the operational strategy, conducting baseline assessments, training trainers, mapping private providers for RTI/STI treatment, and arranging for supply of free contraceptives from the RCH program as well as social marketing partnerships. Family planning and RTI/STI interventions were initiated in the 10% Demonstration Sites from July to October 2003 and were limited to these sites through December 2004. Available data, corroborated by impressions from field visits and interviews with the CARE RACHNA team, indicate that access to and use of birth spacing methods have increased. There is greater awareness of and openness to discuss RTI/STIs, but referral systems for treatment still need work. The initial positive results of the large scale *Chayan* program will be of immense value for the public health system in India. The results are discussed in detail below.

Prevention and management of Reproductive Tract and Sexually Transmitted Infections

The **B-E** surveys show that the percent of index women in the general population who are correctly aware of at least two signs and symptoms of RTI/STI increased from 30% at baseline to 56% at endline. In the third round of **RAPS** the percentage of mothers of children 6-23 months in the four *Chayan* states who reported suffering from an RTI/STI problem in the past 6 months ranged from 12% in CG of whom 35% reported seeking treatment to 48% in JH of whom 31% sought treatment.

One 2006 *Chayan* Milestone not met was that 25% of project areas would have private provider networks for referring/treating RTI/STIs. The original program design of Rural *Chayan* had private providers as the main source of treatment for women with RTIs/ STIs and not so much public sector providers. The focus on private providers was conceptually flawed. CARE made considerable effort orienting private practitioners to RTI/STI (1,882 in Demonstration Sites in

FY 2005) and urging them to refer their patients to more qualified physicians (MBBS doctors) rather than treat the RTI/STI themselves. However, over time the RACHNA team realized what an overwhelming challenge it would be to organize and regulate private sector providers to deliver quality care, within the time frame available and for an organization like CARE (more social development oriented than health oriented). Fortunately, the RACHNA team shifted the project's attention to the more realistic goal of strengthening referrals to public sector MOHFW Community or Primary Health Centers (CHC, PHC) instead. While referral slips and cards have been introduced by CARE, they are being variably used and tracked at present. Small studies in UP and JH indicate that of those who are referred, only around a third complete treatment, but without partner treatment.

Discussion: CARE's rationale for working on RTI/STIs was sound, namely: (a) to address women's health more holistically, not just targeting women as mothers or trying to control their fertility, (b) sexual and reproductive tract infections can affect acceptance and successful use of family planning methods, and (c) RTI/STIs increase vulnerability to HIV infection. One common reason for not seeking treatment of RTI/STIs is the unavailability of RTI/STI medicines at the CHC or PHC, which will need further work. Another factor is low priority given to reproductive health by women and their restricted mobility and hesitation to communicate about infection. Strengthening referral and treatment through the public sector is a more realistic option than the original approach through the private sector.

Access to contraceptives for birth spacing While the RCH and ICDS programs had established a national norm of having contraceptives in AWCs, few places have implemented it. Thus, the increased **access to free contraceptives** in the AWCs as a result of *Chayan* is noteworthy. By December 2005, 68% of AWCs reported having free contraceptives against the FY 2006 milestone of 30%. This huge increase in access was achieved through regular ICDS-RCH coordination between the AWW and the ANM on supply needs, especially at improved ICDS supervisory sector level meetings promoted by RACHNA post-MTR. Socially marketed (SM) contraceptives are also available in many villages due to RACHNA, often with the AWW, as well as in other locations, as will be discussed later. During the field visits RHCA's were not found to be depot holders. When both the free and the SM supply are available at the AWC, CARE reported that people generally prefer the free supply from the AWC, and to buy the SM product from a shop.

Awareness of contraceptives. While regrettably the final evaluation team did not have access to baseline data from the **B-E** for the following variables, they are nevertheless an interesting indication of the status of knowledge and awareness across the four states by the end of *Chayan*. At least one local myth on use of oral contraceptives was rejected by 46% of women and one myth on condom use by 29% of women. Women who reported that they were offered a choice of methods were 42% of all current users of any modern spacing method.

Use of contraceptives. *Chayan* states have a high unmet need for family planning services. In the 1998/99 NFHS use of spacing methods was very low there. In the **B-E**, the percentage of women currently using either condoms with their partner or oral contraceptives, although still very low, nearly doubled from 6% at baseline to 11% at endline. CARE had planned to reach this prevalence by 2008 after a six-year effort, but impressively was able to achieve it in the

reduced timeframe of four years. Condoms were used slightly more than oral contraceptives, but the increase in use over baseline was much greater for oral contraceptives. The **RAPS** data from Round 2 (R2 in 2004) to Round 3 (R3 in 2005) showed significant improvement in women currently using any modern **birth spacing** method in two of the four states (CG and RA), but not in use of any family planning method or modern methods in general across the four states. The evaluation team's field visits to CG and UP indicate that the program can be further strengthened by improving contraceptive counseling skills of AWWs, ANMs, RHCAAs and CAs to: (a) make optimal use of counseling material (flip charts) during home visits, (b) better communicate advantages and side effects of each contraceptive method, so that 'informed choice' is truly informed! and (c) by involving men.

Social Marketing (SM) of contraceptives was central in the original *Chayan* proposal, but emerged as a less successful component. The intent was to give people with the ability to pay an affordable alternative to free contraceptives. Over the project period, especially post MTR, CARE's focus shifted strategically to assuring free contraceptive supplies to AWCs through coordination with ANMs, and leveraging existing SM agencies present in the *Chayan* areas for coordinating BCC events, as well as opening new SM outlets, without CARE having to pay them to do so. By the time of the final evaluation, CARE's interventions had resulted in availability of SM contraceptive supplies in 32% of village vs. an FY 2006 milestone of 50%. The field visits as well as documented evidence from the states revealed that SM contraceptive sales are low in rural areas where purchasing power is low. The **B-E** endline found that more women were aware of at least one free contraceptive source (59%), than were aware of an SM source in their catchment area (39%).

Discussion: The Social Marketing distribution networks were established through a financial agreement between CARE and Population Services International (PSI) and non-financial partnerships with Hindustan Latex Limited and DKT International. The partnership with PSI also included a BCC component. CARE's original five-year agreement with PSI was scaled back due to the reduction in USAID Population funds for *Chayan* in April 2004. Of the three *Chayan* states that PSI started working in –JH, RA, and CG – it was later decided that PSI would pull out of CG due to local operational problems with networking and coordination at state and district level. The current agreement with PSI covers only development of the contraceptive distribution network and not BCC. According to the PSI representative, the partnership with CARE enhanced PSI's own capacity and credibility among HFW departments and among other donors. Social Marketing has been a somewhat new area for CARE and required considerable capacity building of CARE's own staff. CARE District Team members in a couple of districts desired more empowerment to coordinate with the SM agencies at local level to increase coverage of inaccessible areas, instead of coordination managed mostly at state level.

***Chayan* interventions needed more time to achieve their full benefit** than they have had, due to the shortened project timeframe. The challenges *Chayan* faced to increasing acceptance of birth spacing methods and awareness and treatment-seeking for RTIs/STIs were great. There has been an overwhelming emphasis on sterilization by the GOI's family planning program for decades. Also, this is the preferred option by most women. Similarly, within the cultural contexts in which women view their bodies, as well as their limited access to information,

Chayan set out to break many, many barriers, and these too at scale. Persistent and intense community processes are required to breakthrough social taboos to empower women to acknowledge and address their reproductive health problems. The project did not have sufficient time to nurture the RHCAs and CAs so that they could have become more effective at mobilizing women and partners to address RTI/STIs. The RHCA related recommendations of the MTR could have been followed up had there been more time. Also, given the fact that the health system has never been geared to providing RTI/STI services at the primary level, engaging the system to provide quality referral services definitely needed more time.

In summary, reproductive health and family planning are improving as a result of *Chayan*: increased knowledge of spacing methods, use of condoms and oral contraceptives, availability of free supplies at the AWC, and awareness of RTIs/STIs. This is an excellent example of convergence between the ICDS and RCH programs fostered by RACHNA. Providing family planning services for birth spacing at AWCs should be an essential part of ICDS nationally, and it would be very cost-effective for USAID and other donors to invest in programs of this type to advance family planning in rural India. Additional suggestions in terms of the extent of unfinished work in reproductive health in RACHNA program areas can be found in Annex 3.

4. Contacts by AWW, ANM, RHCAs and CAs

For Maternal Child Health and Nutrition Home visits are probably an essential part of an effective behavior change strategy for this program, because field experience suggests that NHDs are too busy and crowded – and mothers themselves too hurried – to allow for meaningful educational activities or counseling there. Available **ER** and **RAPS** data indicate that there have been significant increases in home visits by this important group of potentially effective behavior change agents during pregnancy, the neonatal period and the first six months of life. However, the **RAPS** did not find significant improvement in home visits to weaning age children (6-11 months). During field visits, home visits to children 12-23 months appeared to be emphasized less and no **RAPS** data were collected on them. Unfortunately, the nutrition **ER** did not collect baseline data on home visits to children 6-23 months of age.

Discussion: There are important issues regarding the effectiveness of home visits by AWWs and ANMs. The program's post-MTR approach of life cycle prioritization and systematization of visits and the development and use of information, education and communication (IEC) materials geared to this life cycle has the potential to enhance the effectiveness of these visits and definitely requires further evaluation. However, the key to effectiveness of even these enhanced approaches will be the level of counseling skills of AWWs and ANMs. Field observations and reports suggest that these skills are limited, especially with regard to the three key steps of: (1) asking (listening); (2) assessing and problem solving; and (3) agreeing on action with caregivers to change behaviors, such as child feeding, that have multiple determinants. It appears that the counseling skill-building training and job aids of the program need to be strengthened to move the home visit from a basically didactic delivery of messages to a more effective behavior change approach. It is also noteworthy that the ANM has no tool for home visits comparable to the tool developed by CARE for AWWs. Given the greater technical knowledge and credibility of the ANM, and her relative lack of supervision, development and evaluation of such a tool may be worthwhile.

Change Agents (CA) were an INHP I best practice, rolled out on a grand scale in the early years of INHP II. Three to five female volunteers were selected from each village to cover 15-20 households each and do community mobilization and outreach work, home visits to counsel families on health and nutrition, and assist the AWW and ANM. By the end of 2005, 48% of the nearly 95,000 RACHNA AWCs had a CA, achieving CARE's target of having a CA in at least half of the villages. Change Agents in the Demonstration Sites were provided three rounds of training of two days each, but in Replication Sites only two rounds of training of two days each were provided. Although information and anecdotal reports from some sites suggest a positive role for CAs, **ER** and **RAPS** data and CARE's own analysis across the project indicate that CAs have not been active in reaching households and that the households reached were often also reached by AWWs. This finding was the basis for CARE's post-MTR shift to systematizing and strengthening home visits by AWWs.

Discussion: According to CARE staff, the ICDS Supervisor was supposed to select CAs that met certain criteria, but at times delegated these selection responsibilities to AWWs and the prerequisites were not strictly followed. Some volunteers may accept their duties for a year or so hoping to get a government job as a result, but then become disenchanted when no job materialized, so finding ways to motivate them was a challenge. Selecting CAs from among the anganwadi mothers is one suggestion, especially role model mothers of healthy babies. Poor selection is one of the first places where programs built on community volunteers can break down, and the MOHFW is eager to learn from CARE's experience to avoid similar problems with the new ASHA Community Health Activist in the GOI's National Rural Health Mission (NRHM). Some of RACHNA's CAs have already been selected as ASHAs especially in CG and JH. RACHNA's CA experience should be documented and disseminated to inform the selection and training of ASHAs that is currently underway. In RACHNA, Change Agents seemed to work better where part of an official government program, e.g. the *Mitanin* health volunteer in CG state, a finding which holds promise for the MOHFW's ASHA. Although there were clearly limitations to the CA strategy, the final evaluation team is convinced that the workload of the AWW and ANM are too great to cover all families in the village adequately, particularly with home visits, without some assistance by other village volunteers. However, CARE found Change Agents more useful in minimizing social exclusion, and mobilizing families to utilize health services, than in making home contacts and providing counseling.

For Reproductive Health and Family Planning The AWW and ANM are reported to be the main source of advice on family planning methods. In the **RAPS** between R2 and R3 an increased percentage of women with children 6-17 months reported having been contacted in the previous month and receiving family planning advice. AWWs are using the Eligible Couple Register and preparing eligible couple lists in UP and JH and using these for counseling, in similar fashion as the successful innovation of making "due lists" for children to increase coverage of immunization and Vitamin A.

Per the *Chayan* design, **Reproductive Health Change Agents (RHCAs)** were intended to be a male and a female in each AWC area who would counsel target families on Birth Spacing Methods and RTI/STI referrals. At the time of the final evaluation, 31% of the villages had RHCAs meeting the FY 2006 milestone of 30%. During the team's field visits we encountered

no male RHCAs. The selection criteria for CAs and RHCAs are very good but problems in implementation were observed on the team's field trip.⁸

Discussion: Early implementation of RHCAs reportedly varied across the states. In some, RHCAs were selected and trained from among existing CAs. In other states, new couples were selected, thereby creating an additional community resource. The post-MTR approach of upgrading existing CAs to RHCAs worked as a motivator, and it was easier to build on their basic training and competence. An additional advantage of upgrading some CAs to RHCAs was that then there were more than one couple present in the village. The final evaluation team has the following suggestions for improving the training of RHCAs. Gender and sexuality need to be included in the contents and the initial modules of training should be conducted separately for the male RHCA and the female RHCA, with the mixed group being brought together once their comfort levels for discussing sexuality issues have increased.

C. Assessment of Program Inputs and Processes

1. Strengthening ICDS and RCH Systems

Increasing Access to Services and Convergence between ICDS and RCH CARE has excelled at promoting convergence or a coming together of various programs and organizations – ICDS and RCH in particular – under the RACHNA program in order to improve service delivery. This is a theme that is very popular in India. CARE found in the RACHNA program that its work in two districts in RA state to get the ICDS and HFW departments to align the supervisory sectors of their workers paid off in terms of better coordination, particularly between the AWW and the ANM (42). The most successful and principal CARE innovation for achieving ICDS/RCH convergence and increased use of health and nutrition services is the Nutrition and Health Day (NHD). The idea behind the NHD is relatively simple. Use the THR as an incentive to attract people to the AWC once a month and arrange to have the AWW (ICDS) and the ANM from the HFW department together at the AWC to deliver nutrition and health services, including immunization, antenatal care, Vitamin A, IFA and child weighing. These days are also seen as a focal point in many villages for increasing community ownership and oversight through participation of panchayats, CBOs, and women's self-help groups (SHGs). The NHD also has been widely accepted within both the ICDS and RCH systems and by local and state governments, with UP, RA and MP state governments adopting the practice state-wide. High adoption rates for the NHD are also seen in CG, and OR states.

As noted earlier the NHDs are not the best venue for nutrition and health education, counseling and conducting antenatal exams. There are also ongoing challenges to sustaining the NHD, including: (1) continuing irregularities in food and medical supplies at AWCs; (2) changes in the way SNP is implemented, a reversion back to on-site feeding, for example, instead of a THR; (3) irregular participation by the ANM, due to other duties such as the need to participate in Pulse Polio or sterilization campaigns; (4) lack of alignment of the sector supervisory

⁸ In Bhadesar Mao in Lucknow District for instance, we met a mother-in-law CA and a daughter-in-law RHCA and saw the gender power relations being fully played out – the daughter-in-law was not allowed to engage in discussions with us. In the same village, the AWW and a CA are aunt and niece, indicating a clustering of power in certain families.

boundaries established by the ICDS and HFW; (5) the presence of a nearby health center which eliminates the need to participate in the NHD in order to access health services; and (6) venue problems which result in NHDs for several AWCs being merged and held together in schools, as is the case in UP, which discourages attendance by people living in more remote areas.

The team and CARE are concerned about the food dependency of the NHD model. Food needs to be available at the AWC on a regular basis and in the form of a THR for this model to succeed. When food is not available, participation and immunizations drop. Concern about the effect of lack of food on NHDs increased during the transition from CARE-supplied CSB to state-procured food grain rations. CARE wisely added a management indicator starting in FY 2004 to carefully monitor this problem and work to minimize it, namely the **percent of AWCs where immunization and/or an antenatal check-up were provided on a scheduled NHD, in the absence of THR last month**. The indicator stood at only 27% when initially measured in FY 2003 during the height of the food transition, when food supplies at AWCs were at historic lows, but disturbingly remained at that level through FY 2005. At most recent measure for the period October to December 2005, there had only been a slight improvement to 33%, far below the expected target of 80% by the end of INHP II.⁹ It is clear that this is a continuing problem, in many ways beyond CARE's control now that states supply most of the food, and that CARE is unlikely to meet the target by the end of the program. While CARE has devoted considerable effort to ensuring that the food gets to the right place at the right time in the right form, and to ensuring that health services go forward at NHDs with or without food, it has not been able to achieve much improvement. Therefore, the final evaluation team recommends that CARE give consideration to experimenting more with an NHD model that can achieve convergence of health and nutrition services at the community in the absence of a food incentive, as we understand it did in West Bengal.

Focusing Supervision and Home Visits on Most Critical Life Cycle Interventions: CARE has done an excellent job working to engage ICDS and RCH systems and workers on the most critical phases and interventions in the life cycle from pregnancy through the first two years of life for achieving maximum impact on reducing infant mortality and malnutrition. The team found most promising the new post-MTR tools and approaches CARE has introduced for sharpening the focus on improving health and nutrition outcomes and recommends that these be thoroughly tested to develop a solid evidence base for making decisions before recommending them for broader use. The post-MTR supervisory tools and home visit procedures developed by CARE may aid in increasing the effectiveness of ICDS supervision. However, achieving truly supportive and effective outcome-oriented supervision is likely to require additional inputs.

Because there were no quantitative data or systematic evaluation of RACHNA's efforts to improve **supportive supervision** element of the ICDS and HFW systems, the evaluation team was able to gain only limited insight into this important component. As noted by one team member, the RACHNA program has had a principal focus on inputs, tools, and activities for community level, front-line workers – AWWs and ANMs. However, the supervisory level needs to play a significant role in reinforcing and sustaining those operational level activities. Also, especially in areas without NGOs, supervisors are required to play a key role in dissemination of new practices in the RACHNA program. There appeared to be less focus in

⁹ The denominator for this indicator is the 46% of all AWCs that did not have the THR available.

RACHNA on strengthening the supervisory role and management skills of the block level official in charge of ICDS, the Child Development Project Officer (CDPO). Since this officer's job description includes these critical functions, it would seem more sustainable in the future to strengthen CDPOs, rather than have NGOs take on many of these responsibilities as done in the post-MTR RACHNA approach.

In the better AWCs visited, there were clearly examples of excellent ICDS supervisors who had grasped the RACHNA program approaches and supported AWWs in implementing those approaches and even in solving problems. This is the ideal end product. However, there is substantial, though not systematic, evidence of weakness in the ICDS supervisory function. There are large numbers of vacant posts in the supervisory cadre (e.g. in AP, BI, and JH states), resulting in overload of existing supervisors (who are already normally supposed to oversee 20-25 AWCs). Non-systematic observations combined with limited data also suggest that supervisors may not be highly effective in supporting RACHNA program elements. Supervisory visits are reportedly often largely directed to mechanical processes, such as compilation of data and review of food supplies. The communication between AWW and supervisor, both during supervisory activities in the AWC and at meetings, appears often to be hierarchical rather than supportive; this makes identification and cooperative resolution of problems less likely. In regards to outcome-oriented supervision, while supervisors have tools to aggregate (and even computerize) data, it is not clear that they have an analytic approach to understanding and using these data. The findings of the CARE team in AP that the aggregate data in the ICDS Monthly Progress report are not very useful, but continue to be collected (and now entered) by supervisors supports other observations suggesting that supervisors are generally not trained in or oriented toward analytic, problem-solving.

If effectiveness of ICDS supervision has shortcomings, it appears that on the HFW side support and supervision of ANMs is largely absent. At the sub-center level, ANMs are supposed to share their workload with a "Male Multi-Purpose Worker;" however, this position is reportedly seldom filled. There are also reportedly a high proportion of vacancies in the ANM's supervisory level, the "Lady Health Visitor" (LHV); where LHVs do exist, they reportedly are often occupied with responsibility for supervising clinical activities in PHCs and frequently do not get out to visit ANMs in sub-centers.

It is important to clarify that most of the above weaknesses in supervision are system gaps and not gaps in RACHNA implementation. The causes of problems such as vacancies are complex and the team understands that some local governments are devising creative solutions. Meanwhile, RACHNA has been able to prove that even with such systemic deficiencies in supervision that results are still possible. The final evaluation team concludes that for both effectiveness and sustainability, any future national or state-wide effort to apply the experiences of RACHNA will need to devote more resources and attention to strengthening both the numbers and functionality of this important second (supervisory) level of the ICDS and HFW delivery systems.

Strengthening Supply Chain Management CARE has developed considerable expertise over many decades in managing food commodities and is uniquely qualified to assist the nine RACHNA states to strengthen their supply chain management systems. Until the end of 2002,

CARE focused on managing the distribution of the Title II CSB and refined vegetable oil imports directly, but the ban on CSB imports forced CARE into transferring supply chain management technology to the states earlier than it might otherwise have done. As a result of experience gained during the transition, CARE and the governments have identified weaknesses in the state systems, which CARE has the tools and organizational know-how to address.

At the beginning of the transition, CARE worked closely with the state governments to develop program budgets for local food procurement, fix ration sizes and develop recipes compatible with the Title II oil that continued to be distributed through the SNP. However, CARE staff have the capacity to do much more, as the recent experience in AP suggests. In that state CARE commodity staff have developed a one day training course and provided technical assistance to improve government counterparts' knowledge of key areas of commodity management, including need-based planning, procurement, distribution and allocation (based on the AWC closing balance), reducing commodity losses and improving storage and warehouse management practices, proper targeting and allocation of commodities based on needs, and improved reporting and accounting practices. As part of their capacity building efforts, the commodity staff also undertook a pilot exercise in one of the blocks which included the analysis of the commodity flows from the block to the AWCs and the development of a simple system to allocate the food resources among the centers based on need. This system was tested successfully and the ICDS has committed itself to replicate it throughout the state. Now the CARE staff are adapting the software that CARE uses to monitor commodity stocks and flows to the ICDS system, a development that the ICDS state office is extremely interested in. If the state ICDS is able to computerize reporting systems, this will reduce the time and effort spent preparing reports, reduce errors, and enable offices to easily aggregate data from the AWCs to the block, district and state levels.

The extent to which CARE has applied its experience in managing food supply chains to help improve logistics systems for other supplies including drugs, vaccines, contraceptives, micronutrients, etc. was also reviewed. According to CARE staff, the potential for broadening out into strengthening other commodity management systems essential to the RACHNA package of interventions was looked into at the beginning of INHP II including through a CARE-sponsored external analysis. A decision was made by CARE not to enter into strengthening these other logistics systems, but instead to give the responsibility for solving these kinds of problems at local level to the Government Partnership Officer on the CARE District Team. By all reports the CARE District Teams provided invaluable help with local problem-solving. However, the final evaluation team considers this a less sustainable option, and a missed opportunity for CARE to have had a lasting impact on strengthening HFW systems at a higher level to assure improved availability of the drugs needed for RCH and ICDS essential health and nutrition services in the RACHNA package. We recommend that CARE seize future opportunities to share its expertise in logistics.

Convergence and Coordination Mechanisms Based on CARE's end-of-project documentation, limited observation, and the draft Qualitative Assessment Report, the convergence and coordination mechanisms instituted under RACHNA are a mixed success (11, 26). The pros and cons of food incentive dependent NHDs have already been discussed. At the management levels (sector, block, and district) there appears to be more variation in the

functionality of other convergence mechanisms. Block Level Resource Mapping (BLRM- a CARE Best Practice from INHP I), was de-emphasized post-MTR, but planning and program reviews at Block Level Advisory Committees (BLAC), and District Level Advisory Committees (DLAC) continued. In many states, the BLAC, with participation of PRI members and block officials from different departments, review the program. Regularity of BLAC meetings and quality of discussions vary across blocks. Project data indicate that only about half of blocks have quarterly BLAC meetings (range: 25% in RA to 75% in MP). In JH state the team witnessed a BLAC meeting involving ICDS, HFW, and local officials in which aggregate health and nutrition outcome data were appropriately used as the thematic focus of the meeting. These data sparked a substantive discussion on “left-outs” and immunization in distant hamlets, but no notice of the persistent 60% rate of childhood malnutrition (despite earlier questions by the team about malnutrition in the area). The team was informed that some BLACs were “dormant;” and that in one area, this coordination function had been moved to the PHC level (usually several PHCs in a block), with the PHC Medical Officer convening and the ICDS CDPO reportedly attending each of these meetings within their block. This might be a useful option for advancing the local ICDS-RCH convergence process. It might also increase the engagement of HFW, whose relatively lesser engagement and ownership of RACHNA processes is frequently described by informants, correlating with project data showing that only about 40% of blocks have even quarterly ANM participation in at least half of all sector meetings, and that there has been less impact on increasing home visits by ANMs.

District level convergence mechanisms also appear variable in function and effectiveness depending in large part on the strength of the CARE District Team and the involvement of the District Magistrate. In places where the Magistrate is interested and engaged, participation and action by all relevant partners are much more likely. Despite their variability, the existence of these convergent groups is apparently of use to local processes in responding to specific tasks, such as micro-planning for immunization catch-up rounds. Such task-oriented functions may sustain these groups; the best way to support convergence in routine management and oversight functions may need further evaluation.

2. Community Outreach and Mobilization

The role of **Change Agents and Reproductive Health Change Agents** in CARE’s community mobilization and outreach strategy has been discussed earlier. CARE has been successful in also working with **Community Based Organizations** (CBO - mostly women’s groups) and elected village councils, **Panchayati Raj Institutions** (PRI), to create enabling conditions, generate demand for services, reduce social exclusion, monitor the quality of the program and hold service providers accountable. A measure of this community involvement is CARE’s management indicator **percent of Nutrition and Health Days where CBO and/or PRI participated, last month** with its end of program target of 30%, which it had well exceeded with 45% participation by December 2005. CARE also had a Milestone by 2006 that 30% of the villages in *Chayan* would have CBOs working on reproductive health issues, of which there is no good measure beyond their general participation in NHDs as stated above. It is less clear how well CARE has been able to orient CBOs and PRIs to health and nutrition outcomes so that they strive to achieve specific results in improving these in their villages.

Involvement of PRIs and CBOs is variable across states and affected greatly by political factors. In CG, OR and MP, the government emphasis on PRIs has given a boost to their involvement in the RACHNA program. During field visits in CG, we learned that the PRI's involvement in NHDs resulted in a government directive to discuss Health and Nutrition issues in the Gram Sabhas (Village General Assemblies). Panchayat members engaged with us about the program in each of the six AWCs visited. In WB and RA, as well as CG, monthly meetings at the Gram Sabha level are being conducted by PRI members and performance of ICDS and HFW functionaries reviewed periodically. Conversely, states like JH, AP, and UP have had limited emphasis on PRIs. In JH, CARE leveraged other government development programs to promote participation of CBO members in Health and Nutrition. In AP, CARE built capacities of mothers' committees formed by ICDS to manage the AWCs. In UP we were told by a Block Development Officer that Village Health Committees are being formed. The government agenda of constituting Village Health Committees under the NRHM as well as institutionalizing community-based monitoring systems could provide opportunities for CARE to advance community mobilization.

If future opportunities arise, it would be useful for CARE to develop modules and toolkits to educate PRIs and CBOs on health and nutrition and strengthen their involvement in striving to achieve health and nutrition outcomes in their villages. CARE's experience with CBOs and PRIs should be systematically documented and disseminated at national and state levels, as it will provide valuable lessons for the NRHM, which places PRI involvement at the center. To summarize, community outreach and mobilization is a very important element of the RACHNA program. These processes are very intensive and time consuming and CARE has made good progress, given the scale of the program.

3. NGO Partnerships

NGOs played an important role in RACHNA. They are the major implementers (along with the government systems of ICDS and RCH) and deliverers of program inputs and oversight. And. The NGO sub-grantees received approximately \$4.9 million or 41% of the program expenses for RACHNA (which exclude CARE staff and management costs) from FY 2002-05.¹⁰ Available information suggests that – like other elements of the “middle level” of the program (between the national/state headquarters level and the point of service in communities) – there is substantial variability and mixed strengths and weaknesses of the NGO component. There are also some doubts about the extent to which NGOs are duplicating or displacing government functions and whether this is sustainable.

The role of NGOs in the pre-MTR phase of RACHNA played to their relative strengths, i.e., community level action and organization, principally focused on development of Demonstration Sites. Even in this role there was apparent variability in competencies: some NGOs had strong community organization experience but little background in health and nutrition or in working with ICDS and RCH. Some were functioning in relatively large geographic areas with existing management and administrative infrastructure and capacity, while others were smaller and less

¹⁰ As of December 2005 CARE had agreements with 138 NGOs covering 97% of the RACHNA blocks. Program expenses include capacity building, behavior change communication, monitoring and evaluation and subgrantee/contracts.

robust. CARE applied a fairly rigorous approach of screening and selection to identify NGO partners, developed working relationships under specific contractual arrangements, and invested substantial effort in capacity building of its NGO partners. Nevertheless, substantial variability still appears to characterize the NGO inputs.

The value-added of many of the NGOs' community mobilization and IEC activities in Demonstration Sites towards achieving health and nutrition outcomes, could not be determined. NGO efforts in Replication Sites appear to have been more variable, since this scaling-up was increasingly the responsibility of local government counterparts. Some informants believed that the NGOs put too much effort for too long into Demonstration Site development. NGOs may have played an especially important role in adapting and introducing the program into logistically and culturally difficult areas, including tribal populations.

Under the post-MTR approach, the NGOs' role is substantially different and perhaps less suited to their capacities. Their direct interaction with communities and direct inputs in support of AWWs and ICDS supervisors –all of which may not be sustainable - have been lessened. Instead, NGOs conduct organizational and capacity-building tasks across sectors in entire blocks. Several observers felt that many NGOs lack the technical competence, credibility, and authority to carry out these higher level functions.

In terms of these post-MTR functions – the “Sector Level Analysis and Planning” tool developed by CARE may improve the effectiveness of NGOs in “outcome-oriented management of the program. In JH, the evaluation team met the leaders of a tribal NGO who described a process of outcome-oriented problem identification and resolution through review of this tool with each of their field agents; what they described would be a model for the whole system. However, other reports indicate that this level of competency and management are unlikely to be the norm. Thus – like other elements of the post-MTR approach - the effectiveness of CARE's NGO partners in their new role, and of new procedures for supporting them, require systematic evaluation. The MOHFW is planning to use NGOs in NRHM and again could learn much from CARE's experience which should be documented. A recommendation for achieving greater sustainability is to try to select local NGOs resident in the area where they will be working as they are more likely to stay and continue working once a program like RACHNA ends.

4. Capacity Building

The RACHNA program appears to have contributed to increased managerial and technical capacities at various levels, among different constituencies. Capacity building was one of the principal CARE inputs used to strengthen the ICDS and RCH programs and mobilize communities through three components: (1) technical content, (2) process skills, and (3) motivation. The training modules developed have been used by the ICDS national and state programs as discussed in more detail in Section D. on Policy Influence of RACHNA. The training inputs were approximately \$4.9 million or 43% of the program expenses for RACHNA (which exclude CARE staff and management costs) from FY 2002-05. According to CARE's End of Program Documentation (11) they included training workshops, as well as cross-visits for observation, joint program reviews of ICDS and Health, supportive supervision and

experience sharing meetings. It is very impressive to note that more than 1.3 million participants were trained cumulatively, though it is impossible from the information system to know how many separate individuals were trained, as a number of participants received several rounds of training. Participants included CBOs, PRIs, CAs, RHCAs, AWWs, ANMs, ICDS Supervisors, Medical Officers, CDPOs, NGO staff, and district and state level officials of ICDS and HFW departments. In most years of the program, except FY 2004, CARE failed to reach 100% of its target for training counterpart personnel and community members in nutrition and health topics, but reached from 73%-92%, most likely due to the huge numbers and daunting scale at which it was working.

The approach to training used was Training of Trainers in District Training Teams (DTT) and Block Training Teams (BTT) comprised of CARE staff and consultants, NGO staff and some ICDS CDPOs and supervisors and then Cascade Training down to community level. CARE's District Teams each had one full time Capacity Building Officer, who provided useful in-house expertise, given the high volume of training to be done. The training workshops were short 2-day sessions for the most part. The post-MTR approach shifted away from training workshops to use of 1-2 hour sessions at the ICDS supervisor's sector meeting with her AWWs, with ANMs encouraged to attend.

The observations of the final evaluation team from document review, interviews with DTTs and BTTs, and other CARE staff and field visits were that the training modules and training could benefit from more up-front training needs assessment and from post-training evaluation of participants' skills on-the-job. The curricula tended to emphasize more the "what" or technical content and less the "how" to implement it, and could benefit from being more performance-based. The team found a marked imbalance in the amount of training time devoted to different topics in the Capacity Building Module for INHP District Teams, which contains modules and session plans on different RACHNA technical themes for training AWWs, ANMs, CAs, RHCAs, etc.(18). In areas which also had *Chayan*, breastfeeding and complementary feeding clearly got short shrift with only two sessions compared to nine sessions on family planning and five sessions on RTI/STI. Improving IYCF practices is as complicated and requires as much training time, especially to build solid counseling skills, as do the reproductive health themes.

A review of the Health Service Providers' Training Module during the final evaluation indicates that while there are some useful and necessary topics included in the contents (*Social and Ethical issues in HIV/AIDS* and *Documentation and follow-up*), the module can be further enhanced by including: (a) a gender perspective – e.g. what are the barriers to women's treatment seeking for RTI/STI, how can these be addressed, gender power relations in STIs and including these points in counseling, (b) how to evaluate referrals for medicine availability and quality of care issues, and (c) reasons why condoms are not used and how to address these (based on formative research).

While the team recognizes the constraints of working at scale with limited resources and getting ICDS and HFW functionaries freed to attend training, we do not think 2-day workshops, even repeated several times, were anywhere near long enough to adequately build the skills needed across the breadth of subject areas in the RACHNA program. The post-MTR approach of not even conducting the 2 day basic orientation workshops is even less realistic. The final evaluation team acknowledges the wisdom of strengthening existing sector meetings for short

in-service training as a feasible and sustainable approach. However, there is no substitute for adequate basic training and initial training on new approaches. It would be better to work at a smaller scale or invest less in other inputs in order to be able to invest more time and money in training of adequate quality and duration. In this sense, CARE's work with ICDS training institutions to improve the content of basic job training and refresher courses is very strategic. In future programs, it would probably be more effective to lobby with senior officials to get ICDS and RCH functionaries released for a sufficient amount of time to do adequate in-service training. The RACHNA capacity building component would benefit from a more thorough, expert review than time permitted during the final evaluation.

5. Behavior Change Communication (BCC)

Many of the health and nutrition outcomes RACHNA sought to improve depended on effective behavior change communication to change pregnancy and delivery practices, newborn care practices, infant and young child feeding practices, care-seeking behavior and demand for services. CARE invested \$1.3 million or 11% of the program resources from FY 2002-05 (excluding CARE staff and management costs) in this important component which used multiple channels to reach communities with relevant information. More impact was achieved in changing easier, one-time behaviors like timing of breastfeeding or solid food initiation, or not applying anything to the cord at delivery, than in repeated behaviors such as frequency, and quantity of complementary feeding. The final evaluation team found the same weaknesses in this component that were flagged in the MTR report, and that CARE had not done enough to address these since the MTR (6).

The final evaluation team was not able to view or assess the merits of the folk and mass media components of the BCC efforts, but did assess the interpersonal communication component in field visits. The team did not observe workers with the counseling skills required or using suitable job aids. CARE said this was likely a gap because it had not been able to train AWWs for sufficient time. Although the evaluation team recognizes that some formative research was done to develop the behavior change strategy for infant and young child feeding, given the difficulty of changing these behaviors and the wide variety of beliefs and practices across cultures in the nine program states in India, we think the program could have benefited from more formative research and development of more specific job aids and communication strategies as a result. The Behavior Change Matrix and Essential Nutrition Actions Frameworks used in RACHNA are excellent for training workers in all the important elements that should be covered at each stage in the life cycle and are used as technical guides by many states. However, they are not effective as job aids for counseling and negotiating with individual mothers on small doable actions. Given that the RACHNA program was able to improve one time newborn care practices and early initiation of breastfeeding, but unable to achieve much improvement in the repeated IYCF behaviors, a more thorough, independent, expert review of the whole BCC strategy used and what could be done to strengthen it would be beneficial. As stated in the MTR report "The challenge to RACHNA is to figure out which BCC interventions are working and which are not. This would not only improve performance but also would save resources, since ineffective BCC interventions could be ended." (6)

6. Monitoring and Evaluation

Mounting an effective monitoring system for a program at the scale of RACHNA, built on the existing ICDS information system, was a huge challenge and CARE is to be commended for having done so successfully. High turnover of CARE's monitoring and evaluation staff, some retrenchment and lack of institutional memory compounded the challenge. Given the enormous scope and ramifications of even small changes, it was very difficult for CARE to achieve the full flexibility required for changing the information system to match the evolution of the program design, but it made changes as necessary and feasible. One example was the useful addition, as part of food transition monitoring, of an indicator on whether NHDs went forward with immunization or antenatal check-ups even without the THR. CARE was most successful at collecting, reporting and using data on key processes and management indicators, building an impressive automated health management information system (HMIS) from the community level up, which was codified for the first time in a comprehensive manual in April 2003. The team reviewed a revised version of the HMIS manual dated May 25, 2004 (8). The HMIS information appeared to be used for problem identification and action through participatory reviews involving the key players in the program, i.e. CARE, NGOs, ICDS and HFW at block, district, and state level.

The main limitation in the design of CARE's approach to monitoring RACHNA was the absence of outcome indicators in the routine information system to use for management for results, and the reliance. From 2003 onwards, by design, the periodic assessments in panel districts (RAPS) provided CARE indispensable health and nutrition outcome data that it used strategically for decision-making, including completing re-orienting the programs approach post-MTR. However, these data represented only 8 of the 78 districts and were only collected once a year. The rest of the districts and blocks had no similar outcome data, although some smaller versions of the assessments called mini-RAPS were done in 53 other districts in the last year of the program. The RAPS do not provide routine monitoring data to guide ongoing management of the project in the way that HMIS information does, but the HMIS was focused on process data.. The final evaluation team found the "stories" written about findings of the RAPS and mini-RAPS on different interventions in different districts very interesting. However, their usefulness was limited by the fact that they tended to only be written up for districts who had achieved success with a particular intervention, and even within that district would omit the presentation of findings where results were not favorable and only present those that had a positive outcome.¹¹ Much can be learned from failure and it is important to tell the whole story.

The most notable problem in implementing RACHNA without routine outcome data to validate design assumptions was that the program invested in training thousands of CAs as a "best practice" and principle strategy for more than three years before discovering from RAPS outcome data that these CAs were not making contacts with mothers as assumed. Another example of lack of outcome data for management for results was the design decision that the

¹¹ An example is the story on "RACHNA II Interventions and Improvements in Nutritional Status: an Analysis from Orissa Panel District for Infants 6-11 months of age" which shows positive results for infants 6-11 months but fails to include the results for infants 12-23 months that were not positive.

program would have no nutritional status or weight gain indicator in its monitoring system, even though reducing malnutrition was one of the key overall impacts expected of RACHNA. Lack of indicators on home visits and RTI/STI referrals are other examples. The MTR recommended that CARE introduce a system to track behavior change outcomes. It was encouraging to see that CARE had done so through its new post-MTR sector approach and the new role of the NGOs. However, these data would probably get more attention for management for results if automated and reported up to higher levels in quarterly reports.

The INHP II **Indicator Performance Tracking Table (PTT)** with the targets for results achievement that CARE committed to achieve with the USAID funding over the five years of the program was particularly problematic. Fortunately the *Chayan* PTT did not appear to suffer from the same problems. Because it had been agreed between CARE and USAID only to measure the *Chayan* and INHP II health and nutrition outcome indicators at baseline and at endline, CARE had none of these outcome data to use for management for results in the RACHNA program. Furthermore, given that there was no ongoing requirement to measure outcomes during the life of the program, it appeared that CARE had not taken this part of the PTT very seriously until the final evaluation.

Measurability did not seem to be adequately taken into consideration in proposing some indicators. During the final evaluation more than one fourth of the PTT outcome indicators CARE had committed to improve were re-defined to accommodate available data, due to not asking appropriate and comparable questions or changing numerators or denominators in the **B-E** surveys, with the new definitions less stringent in terms of results accomplished, e.g. removing requirement for timeliness of measles vaccination and vitamin A supplementation or delivery kit requirement from Birth Plans. Indeed in contrast to standard operating procedure in most USAID-funded projects, CARE had no Performance Monitoring Plan to accompany its PTT to spell out clearly the definitions of the indicators, numerators and denominators, units of measure, limitations, etc. Three of the eleven impact and outcome indicators in the final PTT have no baseline data despite having been included in the original DAP with plans to collect baseline data to be determined. Two others are missing baseline data for UP and WB. Thus, no conclusion can be drawn on the impact of RACHNA on increasing the use of birth plans, percent of babies dried and wrapped, breastfed in the first hour, exclusively breastfed, or children 36-72 months receiving ICDS food rations. Furthermore, because the questions were not asked in a comparable fashion, no meaningful evaluation can be made of RACHNA's impact on lactating women receiving ICDS food rations from 0-5 months postpartum. Thus, the final evaluation team found that six of the eleven PTT impact and outcome indicators were of no use for measuring RACHNA's results achievement.

Furthermore, for all eight of the eleven indicators for which CARE had presented baseline data to USAID in the formal PTT submission during DAP approval, the baselines were changed during the final evaluation after cleaning, re-analysis and re-weighting of the baseline and endline data, commissioned by USAID from an independent source. The experts conducting this re-analysis and on the final evaluation team concluded that a shorter baseline questionnaire could have increased the quality of information obtained, because interview fatigue is common with very lengthy questionnaires like the one used in INHP II. Some of the information collected appeared to not be needed. Another issue was that different states entered the baseline

data using different formats, when a uniform data entry format should have been used. They found, the quality of the endline questionnaire and data much better. Since the baseline figures changed, whether any of the approved targets committed to USAID by CARE in the INHP II PTT are still valid is unclear. The final evaluation team also found a number of indicators mislabeled in CARE's PTT, e.g. a label of 6-36 months children, when the data were for 6-24 months old children, which were misleading and inappropriately handled in footnotes instead of by correct labels. Thus, it is impossible to attach a meaningful PTT table for the impact and outcome indicators of INHP II to this report. What is found in Annex 5 is a table for INHP II comparing the baseline and endline data for the revised impact and outcome performance indicators. Fortunately, the INHP II management indicators were not affected by the above problems and achievements on these are found in Annex 5 along with the *Chayan* PTT.

To end this section on a more positive note, CARE's work to overhaul and streamline ICDS reporting in two states, drastically reducing the number of registers of the AWW from 15-20 to 6, and thus her workload, was greatly appreciated by the state governments. In the process CARE succeeded in introducing for the first time the recording of care and feeding practices information and explicitly linking maternal and child health registers. In AP, CARE developed an HMIS software package linked to a geographic information system and piloted it in 70 ICDS blocks and has agreed at the state government's request to scale it up state-wide. CARE also made useful suggestions for revision of the MIS at the national level to the MOWCD. The team believes CARE could benefit from an internal reflections exercise with staff at all levels to document lessons learned from the RACHNA monitoring and evaluation processes, with a view to overcoming barriers to using health and nutrition outcomes data for program management and decision-making, especially at district and state level.

D. Assessment of RACHNA's Influence on Policy and Improvements in National Programs

RACHNA intended to influence policy and programs by demonstrating the effectiveness of its strategies in improving the quality of processes and the quantity of outputs, which in turn are expected to improve the outcomes of the ICDS and RCH programs. In order to determine to what an extent this objective was achieved, the team reviewed available reference materials and interviewed several key policy makers and program implementers working for the MOWCD and MOHFW at the state and central level, non governmental national, bilateral and multilateral international organizations (Annex 4).

CARE has made a concerted effort to influence policy at national and state level. RACHNA staff have written several letters, interacted on a periodic and sustained basis with concerned officials, and organized several consultations and meetings to share innovations and address key policy issues. As a result, the team was impressed to see a joint letter from the national Secretaries of Health and Family Welfare and Women and Child Development sent in February 2005 to senior officials in the nine RACHNA states encouraging them to use CARE's experience (such as NHDs) to strengthen the ICDS and RCH programs throughout their states. Similar letters were issued at state level.

The following are some examples of RACHNA approaches that have extended beyond the project area. The convergence of ICDS and RCH services for less than 2 year-old children,

pregnant and lactating women through the delivery of a Take Home Ration and observance of Nutrition and Health Days has been extended state-wide by three states. Community mobilization through CAs and community-based organizations has also been implemented across large areas. At national level, NIPCCD has incorporated RACHNA's behavior change communication strategies in the ICDS refresher training curricula for various levels of ICDS staff. In five states (AP, WB, JH, MP and CG) CARE teams assisted the Women and Child Development Departments to revise the state's ICDS curriculum for AWW's training under UDISHA (the World Bank loan for ICDS training) to include the life cycle approach to delivering interventions, an emphasis on gender issues, and the four "best practices". At the request of the GOMP, the RACHNA team designed a trainer's manual and conducted a five-day training of trainers' workshop for the state ICDS training institutions. CARE-assisted commodity tracking systems for procurement and distribution of local food items have been established in several states.

Policy makers and program planners at national and state level perceive the RACHNA experience to be valuable to ICDS, RCH and NRHM. The GOI's Planning Commission and MOWCD sought inputs from RACHNA to design policies for the 11th National Five Year Plan (2008-2012) for reduction of maternal and infant mortality by strengthening the ICDS and RCH programs. The RCH II and NRHM strategies of convergence, community volunteers, and focus on district teams as a management unit have benefited from the RACHNA experience. State and district plans for RCH II and NRHM have drawn heavily on the experience of RACHNA in CG and JH. Through continuous engagement, CARE helped shape the State Nutrition Policy in CG, and the RCH and Population Policy in JH. CARE's Essential Nutrition Actions Toolkit is widely used in many states, including Maharashtra, a non-RACHNA state. RACHNA has collaborated well at national and state levels with international and UN agencies with similar interests and overlapping geographic areas on health and nutrition challenges.

CARE needs to further document evidence for cost-effectiveness of some strategies as listed at the end of this section. Recently introduced approaches and tools in the post-MTR scaled up RACHNA model, i.e., improved AWW home visiting, supportive supervision, sector level review, revisions in records and reports, and monitoring program quality at district level have potential for wider application. Therefore, the cost-effectiveness of these approaches needs to be tested for their, so as to have evidence for policy at national level. Strengthening CARE's public health expertise at national and state level is required for consolidation of the gains made so far and for extending CARE's influence over a wider area.

RACHNA has created a sound foundation for policy dialogue by demonstrating that the effectiveness of large scale central or state programs such as ICDS and RCH can be improved at a modest investment over a short period of 3-4 years, utilizing the expertise of non-governmental organizations such as CARE. CARE is well-respected for its ability to strengthen the capacity of state program planners and district, block, sector and community program managers and workers to deliver a core set of high impact health and nutrition interventions through the convergence of RCH and ICDS services and community mobilization and empowerment. The lessons learned in the RACHNA approach, if heeded, have potential for refining the strategies of NRHM and speeding up nationwide implementation to achieve the National Population and Health Policy goals within the specified timeframe. The final

evaluation team has categorized the status of the evidence-base and makes the following **recommendations on the readiness of CARE innovations and system improvements for being advocated for wider adoption:**

1. Implement on National Scale because Evidence Base Sufficient:
 - a. Convergence of ICDS and RCH service delivery for selected interventions at fixed site on fixed day, e.g., Take Home Ration/ Nutrition and Health Day.
 - b. Commodity tracking system for ICDS supplementary nutrition.
2. Advocate to Extend because Evidence Base Sufficient:
 - a. Community mobilization approach through community-based organizations and PRIs.
 - b. District-based management teams for planning, problem identification and resolution, and tracking progress, supported by a non-governmental organization such as CARE at state and national level.
 - c. Capacity building strategies and implementation of updated/revised content and curriculum for Training of Trainers of AWWs and for refresher training of AWW.
3. Build Evidence Base before Implementation in National Programs
 - a. Cost-effectiveness of the post- MTR RACHNA approach of home visiting, supportive supervision, sector level review, and district level managerial support.
4. Test and Prove Operational Effectiveness before Advocating for Policy Changes
 - a. Simplification of recording and reporting system for tracking of key input, process, outcome indicators for accreditation of AWW centers.
 - b. Local food model supported by self-help groups.
 - c. Community empowerment through *gram sabha* (village assembly) to increase accountability of system.
 - d. Impact of State Nutrition and Health Policies on Health and Nutrition Programs.

E. Assessment of CARE's Program Management

The final evaluation included several key questions on CARE's management of the RACHNA program which were addressed through interviews with CARE staff at national, state and district level, USAID and the resident advisor for the BASICS technical assistance, as well as through insights gleaned from discussions with GOI officials. CARE's End of Program Documentation provides a detailed discussion on the RACHNA management structure and systems and their evolution over the life of the program (11). CARE program management gets high marks for achievements at an enormous scale in the RACHNA program and for being resilient enough to overcome many challenges and uncertainties. Particularly useful was the reorganization in 2003 to place Regional Program Directors (each responsible for several states) under the supervision of the Senior Program Director for the RACHNA program. The previous hierarchy was based on Title II commodity responsibilities and not closely linked to meeting the technical demands of the RACHNA program. However, the well qualified technical staff for RACHNA at the headquarters was found to be spread very thin, given the enormous scale of the program. State teams would have liked more technical support and visits from headquarters and the final evaluation team found that more quality control on some key project tools was needed.

Turnover and vacancies in positions throughout the program hampered implementation, and filling technical positions at headquarters such as the Assistant Country Director (HHD) position, Technical Director, Technical Program Coordinator, and Technical Specialist positions were viewed as particularly critical.

The District Teams were the backbone of the RACHNA model and a major investment at an annual average cost in FY 2006 of approximately \$46,000 for the basic INHP II team of 4 persons and \$67,000 for the expanded INHP II + *Chayan* team of 6-8 persons¹². The integration of *Chayan* team members seemed to have gone well with savings to both projects due to some shared functions. The District Teams were found to be doing an excellent job of local problem-solving to optimize the performance of the ICDS and RCH programs and their services were greatly appreciated by local and state officials. However, the horizontal structure of the District Teams with no Team Leader was found to be problematic for accountability for results and resolving conflicts among team members. Furthermore, the District Teams need better qualified health and nutrition staff in order to engage government programs credibly and exercise the necessary analytical abilities for advancing improvements to achieve health and nutrition outcomes and impact. Based on personnel information provided by CARE, the evaluation team found that only 7% of the 268 CARE district staff currently on board have any formal training in health or nutrition. While most existing staff have learned by doing and through training and have many years of experience, deeper technical skills are needed for identifying problems and coming up with creative, state-of-the-art solutions beyond the pre-defined program. This lack of expertise is a particular drawback to CARE staff working effectively as technical advisors to the HFW departments.

While the qualifications of RACHNA staff at the state level were somewhat better with approximately 14% having credentials in health or nutrition, greater technical expertise is needed to successfully carry out the technical assistance and policy dialogue role to which CARE aspires with the RACHNA agenda. The state and district staff and systems were found capable of rapidly rolling out the new approaches post-MTR on a large scale. As part of the 2003 reorganization, the focus of state capital-based staff, including a state program representative and regional managers who oversee several districts each, appeared to be mainly on overseeing implementation by the District Teams. This has been an appropriate role given the RACHNA strategy. However, some stakeholders at state level would welcome more involvement by CARE in policy dialogue at state level. As RACHNA ends, this seems an appropriate future focus for CARE, but will too require better qualified technical staff.

CARE's participatory management style with extensive consultation and internal reflection exercises with staff at all levels to plan its strategies were seen as exemplary. However, such exercises at times were seen to unnecessarily slow implementation. Ways to streamline implementation need to be found, given the enormous scale at which CARE works. The Quarterly Program Management Team (PMT) and Quarterly Management Review meetings were viewed as particularly valuable by the staff, as well as the e-mail group list for recent developments and exchange of ideas.

¹² This does not include inputs for BCC, Capacity Building or NGOs.

CARE benefited significantly in increasing its technical capacity and better implementing a state-of-the-art RACHNA program from the technical assistance it received from the worldwide USAID-supported BASICS II and Linkages projects. CARE's collaboration with Johns Hopkins University on the **ER** studies was a useful learning experience. Some concern was expressed that CARE may have become dependent on technical assistance to fill gaps due to some of its key vacant positions and that more capacity could have been transferred had CARE been better staffed to provide counterparts to the technical assistance advisors.

F. Program Graduation and Sustainability in INHP II

1. The Food Transition

In July 2002, the Genetic Engineering Approval Committee (GEAC) of the Government of India disallowed the importation of Title II CSB based on the determination that it was likely to contain bio-engineered foods. This meant that CARE would no longer be able to supply the ICDS SNP with CSB and necessitated that the states make a rapid transition to locally procured food. Helping the states make this transition was a major challenge for CARE staff: (1) because they had little lead time (actual CSB imports ended at the end of 2002), and (2) because they needed to avoid long and/or large disruptions in the supplies of food at the AWCs in order to protect CARE's key program interventions including the THR and the NHD. The loss of the CSB imports also represented a potential threat to the continuation of the overall RACHNA program, since they were expected to comprise a major portion of the total resources to be provided over the life of the program. Eliminating CSB imports also had the effect of reducing the GOI cash contribution to CARE, which was tied to the quantity of the commodity being provided. This challenge also came at a difficult time when CARE was still in the midst of all the management implications of adding the *Chayan* activities to the program and rolling out the INHP interventions

Although the transition represented a major headache, seen in retrospect, it probably went faster and more smoothly than anyone had expected— which is a major accomplishment. By all accounts – various reports from CARE, studies by Cavale (41) and IFPRI (23) and discussions with CARE Delhi and state staff – the food transition was by and large successful with food supplies at the AWCs back to pre-transition levels by the last quarter of 2004 and reasonably adequate and reliable. The current state-prescribed rations also mostly meet the energy and protein specifications set by ICDS, although modifications in the commodity composition of the individual state rations are still taking place. On the other hand, the transition from CSB to domestic food supplies has meant a tremendous increase in complexity, with many new players and new points for variations and interpretations of procedures. Plus, inappropriate or malfunctioning administrative systems, bottlenecks, intrusion of politics and breakdowns of quality and quantity controls continue.

By most accounts the successful transition also left CARE in a stronger position vis-à-vis important stakeholders. According to the IFPRI analysis (23), CARE's good working relations in the nine RACHNA states enabled it to remain a major player in the ICDS program, despite the reduction in the commodities that it brings to the table. Plus, state governments increasingly see CARE as a technical resource in the areas of health and nutrition as well as supply chain

management, a point that was also stressed to several of the evaluation team members during field visits.

With each state using different types of food and different procurement and delivery systems, the quality of the food varies more than when the CSB was supplied. The CSB also was fortified with micronutrients, which is not the case now. Now, only two states – RA and UP – are using local food in their SNP that has been fortified with vitamins and minerals. In other words, while the quantity of food has not been affected by the transition, the total supply of micronutrients in the ICDS SNP has declined sharply.

2. Local Food Models and Self-Help Groups

The transition to local foods was made much easier by the fact that eight of the nine states were already procuring food for use in the AWCs in the non-CARE areas and were able to make use of existing arrangements with vendors and processors. Most of the food that is used in the SNP is procured through local vendors selected through a tender process, although in some cases the basic grains are procured from the Food Corporation of India and the state civil supply corporations at subsidized prices.

Procurement through self-help groups (SHGs), usually consisting of 15 to 20 women, is also an approach that is being piloted primarily in AP (for “ready to eat” foods) and in MP (for wheat and dal). These groups purchase, process, package, and distribute local food to the AWCs to be given to beneficiaries, and are paid for supplying the food by the state governments. CARE is taken with this approach and would like to expand it within and beyond the two states, seeing synergies with its micro-finance and other women’s empowerment activities. The Indian Supreme Court also came out in support of local food models and SHGs in October 2004.¹³ Proponents cite many advantages for procuring through SHGs, many of which were observed first hand during the team visit to one of these groups in AP. These positive attributes include: providing employment for women, increasing women’s incomes and family welfare, improving women’s social standing in their households and communities, encouraging rural entrepreneurship and promoting increased community involvement and ownership.

The downside to scaling up this model are the high costs – both direct costs and opportunity costs to the ICDS core program. Scaling up this model will require the investment of considerable additional human, technical and financial resources to achieve quality and reliability in supply. The model is very labor-intensive, requiring personnel that can devote considerable amounts of time to training these groups in technical and managerial skills, and providing them with continual support and oversight. Resources also will be required to finance equipment for the groups, and to put quality assurance mechanisms in place. In the case of the SHG visited in AP, the CDPO and one of her supervisors had spent an inordinate amount of time on development of one group, time better spent on other activities that are more directly related to the services that ICDS is charged with providing. IFPRI, in its brief review of the

¹³ In a Public Interest Litigation by the People’s Union for Civil Liberties against the Union of India, the Supreme Court Order recommended that local women’s SHGs and *Mahila Mandals* be encouraged “to supply the supplementary food distributed in the anganwadi centers” and that these groups could “make purchases, prepare the food locally, and supervise the distribution.”

local food models, suggested that NGOs would be needed to replicate the SHGs, because only they would be able to invest the amount of time and other resources that these process-intensive SHG enterprises activities require. (23) CARE staff suggested that the model that was being implemented in MP was more workable because it made ICDS the customer and placed the burden of developing the SHGs, including providing them the necessary financial support and building their capacity, on the PRI. However, the team was not convinced that PRIs have the capacity to scale up this approach either. We remain concerned about the potential for irregularities in food supplies and quality and the negative impact that this would have on the program, including ICDS staff feeling that they needed to get more involved in order to protect the food supplies for their program.

It is important that ICDS and the state governments have a much better idea of the true costs and benefits of establishing SHGs to use as a food procurement option, so that they can make informed decisions about the desirability of scaling up this program. Some officials in the central and state governments seem to be of the opinion that the SHGs represent a way to reduce corruption in the procurement system. But there are also costs to the ICDS, including indirect costs, to scaling up such an approach and a potential reduction in benefits if this impacts negatively on the ability of ICDS to provide its core services. There are already many complaints that ICDS lacks clarity with respect to its nutrition mission and that it is trying to do too much. Adding a commitment to use SHGs as its major food procurement mechanism could add to these problems.

3. Graduation

Graduating Out of Commodities The need to respond quickly to the cut-off of the CSB forced CARE into beginning the graduation to local food supplies earlier and faster than it otherwise would have. The states became responsible for providing a substitute for the CSB as of January 2003. CARE continued to provide refined soybean oil for use in the ICDS supplemental feeding program, although it would have preferred to move immediately to 100% monetization. Continuing to import some oil for direct distribution probably kept the overall size of the program higher than it would otherwise have been, but this arrangement also had its costs. In particular, problems emerged involving the need to: (1) convince state government officials of the value of the oil and the importance of building it into the new ICDS system, (2) select locally produced foods that could be used with the oil, and (3) insure the simultaneous delivery of the locally procured foods and the oil. This latter problem is ongoing. CARE commodity staff spend large amounts of time trying to synchronize the delivery of the locally procured food and the imported oil at the block level to minimize irregularities in supply to the nearly 95,000 AWCs.

Now CARE's task will be to graduate the SNP from the oil, a process which could involve CARE staff working with the states to help them find the most cost effective substitute for this calorie dense food. After the CSB imports were discontinued, CARE began to provide more assistance to the states to strengthen their supply chain management systems, in recognition of the fact that the ICDS food distribution program will continue to operate long after the Title II program is over. This type of assistance should be stepped up. As part of the graduation process, CARE should also think about advising and working with the states to help them better

identify and develop systems for dealing with the budgetary and logistics implications of the Supreme Court mandate to universalize the ICDS SNP.

Graduating the Program CARE was already beginning to think about graduation at the end of INHP I and in the DAP for INHP II it proposed to demonstrate a graduation process in about 20 blocks spread across all the states in which it was operating (39). With guidelines coming from Washington about the need to phase down the India Title II program, CARE's April 2003 DAP amendment included an accelerated graduation process, defined as graduating about 25% of its blocks by the end of the current DAP in September 2006 (40).

As part of INHP II design CARE defined graduation in terms of the capacity of the organizations that it was working with – that they were competent and responsive – and not in terms of being able to achieve certain threshold levels with respect to outcome or impact indicators. This led to the adoption of what CARE currently considers to be the three essential elements of its graduation program – (1) community empowerment, including through CBOs and PRIs, (2) responsive systems, through strengthening ICDS and RCH, and (3) institutional linkages between systems and communities. CARE also developed a detailed set of criteria, in collaboration with the states, which it used to identify the 171 blocks (25 %) that might be ready for graduation by the end of INHP II and an elaborate system for monitoring progress against these and additional qualitative indicators block by block.

Although CARE may have started with a strategic vision of the graduation process, the impression that one gets now, talking with CARE staff and reading the numerous documents on graduation prepared by CARE staff and consultants, is that it has gotten too caught up in the processes and the block by block details. At the time of the MTR, the team told CARE that insuring that its graduation blocks would be able to continue to perform in the absence of CARE assistance was a major sustainability issue for CARE and argued that it would be “important for CARE, USAID and the government to be flexible in terms of graduation.” The external environment has changed dramatically since then, however, and the assumptions made when the current graduation process was designed no longer hold. Given a series of events beyond CARE's or even USAID/India's control, the reality now is that it is almost certain that the program will have to end in another two and one half or at the most three and one half years. CARE needs to stop and take a new and more strategic look at what it needs to do to ensure that it is able to graduate the entire program in the few remaining years in the most positive and least painful way possible. To continue its current plans of undertaking further detailed analyses on a sub-set of program blocks will only divert scarce human resources from these more important issues. Instead CARE needs to give priority to consolidating all the knowledge and experience it has gained over the many years of its involvement and to transferring more of this knowledge and experience to the government of India by working with them to strengthen systems beginning at the state level.

G. Gender Integration and Social Equity Concerns

1. Gender Integration

It is clear from historical documents of CARE that it is committed to integration of a gender perspective in its programs as well as its organizational structure, e.g. the Gender Approach Paper, Gender Implementation Plan and Gender Analysis Report (36). Special efforts have been made to recruit women for CARE districts teams. “Integration of Gender leading to better achievement of results” as mentioned in the Gender Approach Paper, is an extremely important strategy; also important is positioning gender integration as a human rights and equity issue. Discussions with districts teams (especially in CG) indicated that some CARE staff have internalized the basics of gender analysis and are adapting these generic ideas to the local program contexts. This, however, is variable – in other locations we observed some blatant playing out of gender power relations- which seemed to go unnoticed by RACHNA team members accompanying us!

A quick review of the BCC material (and events organized) and the capacity building module (18) indicates that Gender and Social Equity concerns are consistently integrated into the contents. However, in modules and session outlines dealing with clinical topics, gender and social aspects are not mainstreamed. And these session outlines are generally the ones that are most used by trainers. CARE/RACHNA has the experience and is positioned to do training modules in which clinical-social and gender aspects are integrated and not discrete.

The MTR had pointed out that the RACHNA program treats women as mothers and not as women. There is consciousness of this fact and many RACHNA team members during field visits to CG and UP emphasized the different ways in which their district and state program tries to promote gender equity. Post-MTR, CARE formed a Gender Working Group to guide incorporation of Gender into programs. There was also an effort to integrate gender issues in the Urban *Chayan* MIS. Ongoing Gender Analysis of Rural RACHNA data reveals an absence of any significant gender differentials in the child care practices measured. The **ER** on nutrition interventions does not reveal any pattern of gender discrimination.

A unique pilot project ‘Inner Spaces, Outer Faces Initiative’ (ISOFI) on Gender and Sexuality was implemented in two districts in RA and UP over a two year period (35). During the field visits in Lucknow district, it was clear that the intense ISOFI community processes had resulted in dynamic and vibrant community groups. It would be useful to assess the effect of the ISOFI on RACHNA’s programmatic outcomes – is the use of birth spacing methods and RTI reporting and treatment- seeking higher in the ISOFI villages as compared to similar villages in other districts? It would also be useful to distill the ISOFI experience into a set of tools and practices that are not as process- intensive, but still effective. These tested tools and practices would be helpful both for applying at the community level as well as at the HFW and ICDS systems level. All the efforts in the area of gender need to be brought together into a whole. There are rich lessons from CARE’s use of short learning cycles to apply a gender perspective to specific program issues.

What more needs to be done? The Gender Analysis exercises done in select locations should be done by every District Team to help them develop a program implementation plan with Gender integrated into it, along with indicators to assess changes in how gender is played out in that particular context. The Gender Working Group can be given the additional responsibility of conducting Gender Audits in different States/Districts/Blocks. Systematic studies to document the effects of gender integration on program outcomes would be useful. Adjustments are needed in the HMIS to capture changes in gender equity in particular contexts and related to specific programmatic issues by generating sex disaggregated data (at the very least), and adding some gender sensitive indicators. CARE can also contribute to ongoing efforts in India to mainstream gender concerns in the HFW and ICDS Systems by developing and advocating for gender-sensitive training modules, HMIS and BCC materials and strategies. Health service providers' training would especially benefit from the ISOFI Health-Gender-Sexuality Module.

2. Social Equity

The RACHNA team is committed to ensuring social equity at all levels and working to both better identify and reach excluded groups. In the pre-MTR period, social maps drawn in the village were meant to (among other things) identify the vulnerable women and children. Change Agents from every hamlet in the village and representing different castes and social groups were another mechanism to deal with exclusion. The continuing caps for SNP, despite the Supreme Court's directive for universalization of ICDS, are one reason cited for continuing social exclusion. Analysis of **RAPS** data disaggregated by lower and higher socio-economic groups, as well as the small studies from the panel districts, indicates that the RACHNA program is benefiting the lower socio-economic groups more. This was corroborated during field visits. The field visits in AP revealed that although children in some hamlets are being left out from SNP, the AWW continues to provide them with other ICDS services. Similarly, in JH the ICDS services were being provided at night to accommodate people away at work during the day. RACHNA team members in CG are of the view that PRIs' involvement in the program right from the beginning may help in reducing exclusion.

III. Summary Findings

1. Assistance to the GOI WCD and HFW Departments from a large, experienced international organization like CARE can strengthen the managerial and technical performance of government programs like ICDS and RCH and lead to greater impact on health and nutrition outcomes. District teams added value.
2. Integrated projects with many components run the risk of some components not getting priority attention. Monitoring and information systems should include indicators to be sure that overall impact intended is not being sacrificed.
3. Diarrhea is one of the major contributors to childhood malnutrition in India and more emphasis is needed on improving hygiene and sanitation practices, especially washing hands with soap after defecation, before preparing and eating food and feeding children.

4. Policies promoted and decisions on which interventions to pursue should be based on evidence of the outcome of the intervention on health and nutrition status. In the case of nutrition, feeding practice indicators may not be sufficiently accurate or sufficient as proxies for data on dietary intake and nutritional status.
5. USAID investments in program evaluation may be more cost effective if independent evaluations including surveys were procured directly by USAID.
6. Evaluations of prior projects should be completed before and used to inform design of follow-on projects.
7. Program monitoring and evaluation systems should be designed to generate information on some key outcome indicators at least annually. Such information is critical to management for results and to validating design assumptions.

IV. Recommendations

This final evaluation has provided valuable insights into the integrated RACHNA program. Our recommendations for the rural RACHNA Program (INHP II and *Chayan*) are as follows:

For Close-out and Transition of RACHNA Services, **CARE/India** should:

1. Work with USAID and the GOI to prepare a transition plan for all the services it is providing that will end when RACHNA ends in September-October 2006.
2. Systematically document lessons learned, prepare and disseminate “how to” guides or toolkits for CARE’s successful innovations, and advocate for their replication by ICDS, RCH or NRHM at national and state level:
 - a. Community outreach and mobilization efforts through community-based organizations, PRIs and Change Agents (including RHCAs) to create enabling conditions, generate demand for services, reduce social exclusion, monitor the quality of the program and hold service providers accountable.
 - b. The successful Rajasthan experience aligning the AWW and ANM supervisory sectors (ICDS Supervisors, Lady Health Visitors) to increase convergence (42).
 - c. Essential elements of an NHD based on presence of THR.
 - d. Integrating birth spacing into ICDS.
 - e. Commodity tracking systems for ICDS supplementary nutrition.
3. Document major lessons learned in the monitoring and evaluation process, through an internal reflections exercise with staff at all levels, especially with a view to improving management for results, i.e., health and nutrition impact and outcomes..

For the Next Title II Phase-out Program and Graduation, **CARE/India** should:

1. Rethink the graduation process, recognizing that the time frame is very short. CARE should shift its focus immediately to how best to graduate the entire program. Staff and other stakeholders need to be informed.
2. Develop an overall graduation strategy and state specific strategies that recognize the need to: strengthen key systems beginning at the state level, identify and address priority policy issues in each state and at the central GOI level and enhance, to the extent possible given the limited time frame, the nutritional focus of the ICDS program. These and other areas and activities that the team believes should be high priority for CARE during the phase out period are outlined in the accompanying table. Other areas/activities that the team believes that CARE should be giving lower priority to and scaling down or even exiting from with respect to the use of Title II resources are also noted in the table.
3. Exit from using Title II resources for most activities at the community/sector/block level. Instead, CARE should focus on synthesizing, consolidating, and documenting what it has learned over many years of engagement with the ICDS program, and on strengthening ICDS systems at higher levels. During the few years remaining CARE no longer has the luxury to be able to work at the block and sector level unless such work contributes to larger objectives beyond that of improving individual block/sector programs. This is the logic behind the next recommendation.
4. The exceptions to the previous recommendation represent steps that CARE could still take within the limited time and resources available to further assess the effectiveness of its approaches in a minimum number of blocks, which is information that the evaluation team believes would be of great use to the ICDS as it moves ahead with its own reform efforts. More specifically, the evaluation team recommends that CARE:
 - a. Identify a barebones approach to delivering the NHD and the new tools and approaches that it has developed in the last year and test and assess this model in several new areas.
 - b. Review the experience in a sample of blocks two years after CARE's exit to assess sustainability and determine whether there are any changes in strategy and/or approaches or additional steps that could increase sustainability.
 - c. Further test and assess the recent refinements in CARE's approach, including through operations research to be undertaken with independent assistance, through the existing FANTA technical assistance mechanism, perhaps, if USAID/India is agreeable. CARE has introduced some promising tools and approaches (improved AWW home visits, better supervision, using sector and cluster meetings for in-service training and improved supervision) in the last year of RACHNA with the aim of sharpening the focus on improving health and nutritional outcomes. The team is concerned that these innovations have not been implemented long enough, nor perhaps well enough (without a state-of-the-art behavior change strategy based on adequate formative research and training to improve counseling skills) nor tested to prove their effectiveness. The outcome of greatest interest is whether this set of recent refinements can be linked to improvements in breastfeeding and complementary feeding practices and in turn to improvements in the nutritional status of 0-23 months old children. The team further suggests that CARE: start by defining and documenting the essential elements of its

new approach, add a proactive growth promotion component based on weight gain to some of the sites to be tested in order to assess whether this enhances impact, and not include NGO assistance in the test in order to be replicable through existing ICDS systems.

5. Give priority during the Title II Phase-out to strengthening the nutritional focus of the ICDS program, including concentrating on ways to refine and strengthen counseling skills and job aids for improving infant and young child feeding practices, including hand washing with soap.
6. Expand the technical capacity and policy dialogue role of its central and state offices during the phase-out and devote more effort to this, reducing the amount of Title II resources used to support district teams beyond those needed to implement recommendation #4. As part of its policy agenda, CARE should:
 - a. Assist the ICDS develop a better national system for monitoring nutritional outcomes and use this information for decision-making and advocacy.
 - b. Advocate with MOHFW and state Health Departments to align the AWW and ANM supervisory sectors (ICDS Supervisor and Lady Health Visitors).
 - c. Advocate for the right to grow well and be healthy vs. just the right to food.
 - d. Push for maintaining/mandating the THR program for pregnant and lactating women and children aged 6-36 months.
 - e. Limit policy advocacy to policies for which there is a strong evidence base.
7. Graduate most NGO activities by the beginning of the phase-out program, at least with respect to the use of Title II resources, but document its experiences with NGOs, especially to inform GOI plans to use NGOs in NRHM. The NGOs were valuable partners in helping CARE implement its program, beginning with community mobilization and later helping CARE strengthen ICDS systems at the sector and block levels. Now it is time for CARE to pass these responsibilities to ICDS or NRHM. However, CARE's experiences, if assessed and documented, could be of use in helping ICDS or NRHM determine whether and how to: (1) make good use of the NGOs at community level, and (2) adapt and integrate some of the more recent system strengthening functions of the NGOs into GOI supervisory processes at the sector and block levels.
8. With respect to Title II commodities and supply chain management, try to negotiate a quick transition to 100% monetization, in conjunction with USAID/India. CARE should be able to redirect the energies of its commodity staff during the remaining years of the program to working with individual states to strengthen commodity management systems and to replicate its successful experience in doing so in AP throughout the ICDS. This is a high priority but one that CARE staff will not be able to devote sufficient time and attention to if they have to continue to spend the majority of their time insuring that the deliveries of the Title II oil are synchronized with receipt of the now locally procured ration at the level of nearly 95,000 AWCs. The latter would be a poor use of their time, especially since the Title II oil will be gone by the end of the program. And, it will divert CARE's time and attention

from activities that have the potential for major, positive, long-term impact on state ICDS commodity management systems

9. Not devote Title II resources to scaling up the women's SHG local food procurement model unless and until it has clear evidence of the true costs and benefits of this approach and a better understanding of what would happen to the ability of the ICDS to deliver its core program if it assumes the workload for this model once scaled up. Decisions with respect to scale-up need to be based on a detailed analysis of the full costs (both direct and indirect), including the costs of additional staff (for training in technical and managerial skills and ongoing support and oversight), management structures, equipment for the groups, quality assurance of food products produced, etc. Such an analysis should include the opportunity costs to ICDS if AWWs, their supervisors, the CDPOs, etc. have to spend time on the development and oversight of SHGs or deal with the adverse impacts on the core ICDS program if and when supply disruptions occur and/or quality controls fail. There is no solid evidence base on which to base policy for this model and such evidence will be indispensable to the GOI to inform its decisions.

The evaluation team believes that there is a great need and many opportunities for **CARE/India** to continue its invaluable work, in partnership with the government of India, in maternal and child health and nutrition and reproductive health in India, regardless of the phase-out of the Title II program, and recommends that **CARE/India**:

1. Further policy dialogue and advocacy at state and national levels and raise resources for an extension and refinement of its rural RACHNA integrated health, population and nutrition program, which effectively converges ICDS and RCH services. Specific components and innovations of greatest value to continue are:
 - *Strengthening CBOs/PRIs* for demand generation and increasing accountability of ICDS and RCH systems for achieving intended health and nutrition outcomes.
 - *Reproductive health system and services strengthening* for increasing access to free contraceptives in ICDS and RTI/STI referral and treatment, including assuring availability of drugs. See Annex 3 for more suggestions.
 - *Improving nutrition in pregnancy and lactation and in children under-two, especially infant and young child feeding and hygiene practices.*
 - *Improving supervision, capacity building and behavior change communication.*
2. Position CARE as a Resource Center for Nutrition and Health. Strengthen the technical capacity and policy dialogue role of its central and state offices. Raise resources to continue district teams.
3. Provide capacity building for its own staff, both on thematic issues (Governance, Health, Gender, Nutrition, etc.) as well as on management issues (Results-Based Management, Team Building, Monitoring and Evaluation, etc.)
4. Standardize the technical content of its programs and assure quality control, allowing some flexibility for State CARE teams to respond to local needs and contexts.
5. Strengthen its monitoring and evaluation capacity. Building partnerships with academic institutions and networks will be useful for conducting program evaluations with consistency and quality.

6. Seek opportunities to use its wealth of expertise in supply chain management to strengthen GOI systems for essential drugs, vaccines, contraceptives, micronutrients.

USAID/India and USAID/Washington/FFP

It is the opinion of the evaluation team that CARE will need a minimum of three years to phase out the Title II program in a responsible manner, given its size and complexity. Because supplementary feeding is basically a state function, CARE will have to negotiate separate phase out strategies with each of the nine states in which it is currently operating. The programs in each state and the speed at which they will be able to take over responsibility from CARE differ greatly. Each of these state programs serves more people than the population of most African or Latin American countries. If CARE is forced to phase out too soon, it and the U.S. Government will lose a unique opportunity -- its last opportunity -- to have a long-lasting impact on this huge system. Now actually is a good time for negotiating a phase out, since the current government is receptive and interested in learning from and utilizing CARE's substantial experience. Two years is just not enough time for CARE to be able to transfer all that it has learned over the years to the nine state governments through the series of system strengthening activities that are necessary or to advocate for key policies at the central and state governments that are needed to protect and enhance the nutritional impact of the program. The Title II program is the only US government program that is mandated to be concerned about nutritional outcomes, so the nutritional advocacy that is still needed is not likely to be picked up adequately under USAID/India's health programs which have a broader mandate. The team has identified some key advocacy issues that it believes CARE needs to address during a three-year phase out (see previous section on Recommendations for CARE during the Title II Phase-out). One of the more important will be to work with the central ICDS to find a way to protect the THR (take home ration) from arbitrary decisions at the state level, including perhaps achieving a mandate from the ICDS central office that states have to implement a THR and not be allowed to revert back to spot feeding. The THR better reaches the most vulnerable nutritionally – pregnant and lactating women and children aged 6-36 months.

USAID/India should:

1. Provide technical assistance to CARE for: (1) operations research to build the evidence base by testing CARE's new infant and young child feeding home visit, supervision and behavior change approaches, and (2) a costing and feasibility study of the self-help group local food model as mentioned in the recommendations above.
2. USAID should look for ways to continue promoting Birth Spacing family planning counseling and services as an essential element of the ICDS program in convergence with RCH as successfully demonstrated by the *Chayan* project.

A. CHANGES IN PRIORITIES IN TITLE II PHASE OUT

RACHNA	Title II Phase Out
<ul style="list-style-type: none"> Replicate and scale-up “best practices” and innovations 	<ul style="list-style-type: none"> Scale-down and transfer functions and responsibilities to GOI and/or other projects Exit from most community/block activities using Title II resources Exceptions: <ul style="list-style-type: none"> Identify bare-bones approach to program and test and assess it in several new areas Review experience in a sample of blocks two years after exit to assess sustainability Further test and assess recent refinements – including through operations research
<ul style="list-style-type: none"> Focus on service delivery at the community and block level 	<ul style="list-style-type: none"> Focus on strengthening systems, beginning at the state level Devote more attention to policy advocacy at the national and state levels
<ul style="list-style-type: none"> Expand substantive focus to include more maternal and child health and family planning activities, RTIs/STIs 	<ul style="list-style-type: none"> Narrow focus and in last few years concentrate on ways to refine and strengthen counseling and job aids with respect to child feeding practices and hygiene messages
<ul style="list-style-type: none"> Expand CARE teams at district level 	<ul style="list-style-type: none"> Reduce the amount of Title II resources used to support CARE District Teams Expand technical capacity and policy dialogue role of CARE central and state offices, especially in health
<ul style="list-style-type: none"> Use NGOs: <ul style="list-style-type: none"> Pre-MTR, for community mobilization and local problem solving in demonstration sites Post-MTR, to help strengthen systems at sector and block levels 	<ul style="list-style-type: none"> Graduate from NGOs at least with respect to the use of Title II resources Document experience with NGOs for use by GOI
<ul style="list-style-type: none"> Graduate from blocks 	<ul style="list-style-type: none"> Graduate from states
<ul style="list-style-type: none"> Manage the import and distribution of Title II commodities 	<ul style="list-style-type: none"> Phase out of direct distribution of oil Provide TA to help strengthen state supply chain management and monitoring systems

Government of India

The CARE RACHNA program has demonstrated successful reduction in childhood malnutrition, increased coverage of services and behavior change through innovations and improvements to ICDS and RCH systems and the convergence between them that merit consideration by the GOI for replication as follows:

1. A sharpened focus on achieving positive health and nutrition impact and outcomes for children under two years and pregnant and lactating women. This requires basic and refresher training to improve skills of AWWs, ANMs and their supervisors.
2. Integrating Birth Spacing family planning counseling and services into the ICDS program through convergence with RCH. The national family planning program should place greater emphasis on Birth Spacing given that short birth intervals have been documented around the world to be major determinants of neonatal, infant and child mortality and malnutrition. In contrast to RACHNA, a focus on terminal methods still predominates in the RCH program. The MOHFW should better train ANMs and improve the quality of counseling and service delivery for family planning for birth spacing, including IUD insertion skills.
3. The use of the take-home ration (THR) for supplementary nutrition to better reach Pregnant and Lactating Women and Children 6-36 months, than spot feeding can. A decision should be taken by the national ICDS program to require THR for these groups, and not to allow states to do spot feeding instead. The most effective strategy in RACHNA for achieving convergence between ICDS and RCH has been the Nutrition and Health Day (NHD). However, the NHD is not effective without the THR. Delivery of immunization and antenatal care at NHDs can also be impaired by spot feeding or absence of THR. Therefore, the MOHFW should also be concerned. If THR can be assured, then NHDs should be adopted by all states.
4. Using Community-based Organizations and Panchayati Raj Institutions (PRI) to create enabling conditions, generate demand for services, reduce social exclusion, monitor the quality of the program and hold service providers accountable. Given provision in the NRHM for the new ASHA community volunteer, the GOI should learn from CARE's success with Change Agents for reducing social exclusion and mobilizing families to use health and nutrition services and lack of success with Change Agents for making home visits and doing counseling. The role of the ASHA in assuring ICDS and RCH convergence needs to be clarified. Her work should include a nutrition focus.

Additional general recommendations for consideration by the GOI are:

5. Increasing accountability for its major investments to reduce malnutrition in children through effective measurement and reporting of child nutritional status and use of such an indicator for advocacy, management and decision-making at all levels, e.g. through improved quality and use of weight for age data collected by AWWs, strategic use of child nutritional status data collected by the National Nutrition Monitoring Bureau, state-wide nutritional surveillance efforts such as that of West Bengal assisted by UNICEF, or an

annual height for age census of first grade primary school children as used in Central American countries .

6. Transforming weighing of children in ICDS into a preventive growth promotion program for under-twos focusing on weight gain and not Nutritional Status Grades Normal through 4 and the current treatment of severe malnutrition focus.
7. Re-orienting the priority tasks of the AWW in ICDS to focus more on growth promotion in under-twos including effective counseling and home visits to improve breastfeeding and complementary feeding and hygiene practices.
8. Achieving universal coverage of measles immunization, including catch-up campaigns for children greater than one year of age who were not immunized in infancy. Measles is often fatal in malnourished children and several cases in children 12-23 months were seen during the final evaluation.
9. Strengthening performance and accountability for achieving health and nutrition outcomes of middle level supervisors and managers in the ICDS and RCH programs at the block level.

PART II FINAL EVALUATION OF URBAN RACHNA PROGRAM **(Chayan HIV/AIDS Prevention)**

A. Background

There are 5.206 million HIV infections in the 15 to 45 year age group in India per recent estimates. With an HIV prevalence of 0.9% in the general population, India is nearly at the threshold for what is deemed a generalized epidemic. Infection with HIV is not uniformly distributed in India, with the prevalence considerably higher ($\geq 1\%$) and the epidemic already generalized in the four Southern states of Maharashtra, Tamil Nadu, Andhra Pradesh, Karnataka, and the Eastern states of Manipur and Nagaland. Understandably most resources and programs for HIV/AIDS in India are directed to these high prevalence states. However, eight other Northern states with low HIV prevalence ($< 1\%$) are considered especially vulnerable to the epidemic, including four of the states where CARE implements Urban *Chayan*, because these states have very large populations, many of whom are extremely poor, mobile or tribal, with limited access to health services, and these states have weak health infrastructure to detect the epidemic early and respond effectively. The HIV/AIDS epidemic is still concentrated in those with high risk life styles in these vulnerable Northern states, making prevention more feasible. Thus, it is widely recognized that the potential is great for slowing or even stopping the HIV/AIDS epidemic in India by focusing on prevention in these low prevalence states in North India, collectively referred to as “green states” and the motto is “Keep the low prevalence ‘green’ states green.” It is important to note that the North Indian states account for a major portion of the population of India, and considerably more people live in the ‘low prevalence’ states than in the ‘high prevalence’ states. Thus, an unchecked HIV/AIDS epidemic in the North would be particularly devastating.

CARE’s rationale for working on HIV/AIDS prevention in four ‘low prevalence’ states and Delhi slums under the umbrella of its RACHNA program was guided by a strategic analysis of the above situation and the risks that HIV/AIDS posed for undermining gains made in the INHP II program. CARE’s extensive network and experience already established for the RACHNA Program provided a head start for its Urban *Chayan* project.

B. Description of Urban *Chayan* Project

In July 2002, USAID approved CARE’s proposal for the \$10.5 million, six-year urban HIV/AIDS prevention project, called “*Chayan*” (meaning Choices), with the aim of reducing the prevalence of RTI/STI and preventing HIV/AIDS transmission. The original end date for *Chayan* of June 30, 2008 was synchronized by CARE and USAID in 2004 with the September 30, 2006 end date for INHP II under the RACHNA umbrella and later extended to October 31, 2006 to allow more time to disburse RACHNA funds. With the shortened timeframe, USAID support was reduced proportionately to \$7.385 million. The project has two components, one for unmarried Youth from 15-24 years in school and out of school (male and female), and the other for High Risk Behavior Groups (HRBG), namely female sex workers (FSW), truckers and migrants (Table 1). The Urban *Chayan* project works in support of the National AIDS Control Organization (NACO) and reaches groups that are not universally covered by the GOI’s

National AIDS Control Program (NACP II). The Youth target group lives in urban slums and ICDS catchment areas and is more vulnerable to HIV because of lower socio-economic status. In India close to 50% of new HIV infections are in the younger age groups. Urban *Chayan* is located in 22 cities in four of the nine RACHNA states – Uttar Pradesh (UP), Rajasthan (RA), Chhattisgarh (CG) and Jharkhand (JH), as well as urban Delhi slums. The goal of Urban *Chayan* is to enable men and women to be better able to protect themselves from RTI/STI and HIV infection through:

- Risk reduction among HRBG through targeted interventions.
- Fostering responsible sexual behavior and reducing vulnerability among unmarried youth.

The interventions are carried out via partner NGOs and include behavior change communication (BCC), creating an enabling environment through engagement with stakeholders, establishing condom outlets, and sensitization of service providers. The BCC strategy uses Peer Educators, and the ABC approach, a concept well accepted by the community.¹⁴ Peer Educators (PEs) are selected and trained and receive other inputs and in turn spread the message. The number of urban *Chayan* sites with Peer Educators is 110 for FSW, 126 for migrants, 107 for truckers, and 239 AWCs for youth. It has established 3,914 condom outlets.

Table 1. Persons covered directly under Urban *Chayan*

FSW	Migrant	Truckers	Youth-School*	Youth-Out of School*
3,081	53,495	67,823	90,148	50,377

* Numbers represent cumulative number of youth reached through all contacts and not individuals, as some youth were contacted more than once.

Another important component of the HRBG intervention is the early detection, referral and syndromic management of RTI/STI in partnership with existing health care facilities.

C. Methodology for the Final Evaluation

The final evaluation was carried out by a team hired by CARE and USAID, with the Urban HIV program evaluated largely by Prof. Lalit M Nath. (Annex 2). It was based on document and data review, observations during field visits to the program, as well as briefings and discussions with CARE/ India staff in Delhi, with other concerned stakeholders, such as USAID and officials from State AIDS Control Societies (SACS) and from the National AIDS Control Organization (NACO), and with a variety of persons during field visits.

Data sources for the evaluation included two rounds of Behavioral Surveillance Surveys – baseline **BSS** and final **BSS**, the RACHNA Results Report for US FY 2005, the CARE End of Program Documentation and various other documents.

¹⁴ The ABC approach consists of promoting Abstinence, Partner Reduction (**Be Faithful**), and Condoms for preventing HIV/AIDS.

Discussion: This evaluation is necessarily limited by the fact that field visits were made only to two states out of the four states and Delhi slums covered in the project and by the fact that at the level of the State AIDS Control Societies only one state was involved.

While extensive data were available, there were limitations worth further investigation by CARE as will be discussed later in this section. Of particular concern was the fact that the presence of risk behavior was chosen as an inclusion criteria at the endline **BSS**, while the objective of the intervention was to reduce HIV risk by converting those at risk to a low risk lifestyle.

It must also be pointed out that no control group of comparable communities that were not part of the *Chayan* project was included in the evaluation design. This, of course, is understandable as the *Chayan* project was not a pure research study, but an intervention that could have been treated as operations research, thus allowing valuable lessons to be drawn of potential benefit to the AIDS Control Program in India and similar programs elsewhere. The CARE team could make the case for the *Chayan* project stronger if they compared their results with those of similar interventions and investigations done in India during the same chronological period. Without that it is difficult to ascribe the results entirely to the *Chayan* process.

D. Approach to implementation in Urban *Chayan* – demonstration – replication

While it had originally been planned to start the *Chayan* project in selected Demonstration Sites and then replicate it other sites, this planned expansion was eliminated when the duration of the project was reduced from 6 years to 4+ years. While there are no plans for replication currently, the reactions of the government machinery as evidenced by our very limited interactions in the field suggest that both the state SACS in UP and RA and the central NACO would not be averse to such scaling-up. An example is the Bharatpur District Collector, who, seeing the work being done by the local CARE team, asked CARE to take the lead in organizing all NGOs working in HIV into a consortium. He urged the other NGOs to take note of the CARE initiative and then got them to divide up their geographical areas and technical focus so as to avoid duplication. Thus, the team is not convinced that the truncation of the *Chayan* project period is a bad thing overall. The efficacy of the CARE HIV prevention interventions is enough to warrant moving beyond the Demonstration Sites to larger scale up now. If *Chayan* ran to 2008 as originally planned, CARE might have continued only in Demonstration Sites longer than warranted. The experience in the field, limited though it was, suggests that the valuable insights CARE has gained should now be put to wider use. The current evaluation can also be seen as an opportunity to expand the *Chayan* concept and broaden the areas of interest. If *Chayan* had run till 2008 it would have had more time to influence the national and local government policies and programs. However, the interest generated as a result of this evaluation offers a chance to gain other sources of funding to continue to build further on the program and to consolidate the gains achieved.

A particularly important aspect of the *Chayan* project was its concentration upon the low HIV prevalence North Indian states. Few comprehensive HIV prevention interventions have been done in this part of India, and yet it is these states that have the potential to prevent a more serious situation developing due to their very large populations and vulnerability. Another very

significant feature is that the great degree of community ownership and empowerment generated by the *Chayan* interventions means that even in the worst case scenario of the project ending and CARE moving on to other things, the salutary effects of the interventions will continue for some time. Unlike *Chayan*, too many projects create dependence rather than empowerment.

Approaches to scaling up While there was little evidence of any significant scaling up or plans for continuation of Urban *Chayan* beyond October 2006, the question of how best to scale up interventions like Urban *Chayan* should be considered from several dimensions should resources become available to do so. The team is clearly of the opinion that the quality of intervention in the areas visited is extremely high, with many advantages over other interventions with essentially the same long-term goals.

Discussion: It would be in the interest of the prevention and control of HIV/AIDS in India if such high quality interventions not only continue, but expand in scope. Another aspect of scaling up is the question of broadening the target groups by including new HRBG to the focus of Urban *Chayan*. For example, future projects could extend coverage to include Men who Have Sex with Men (MSM), an otherwise neglected group who are at particularly high risk. Any current MSM coverage was incidental in the sense that if any MSM were part of an otherwise covered group they were included in *Chayan*. Other groups that could be reached to a greater extent than they are include the staff working at less expensive hotels and guest houses/lodges and those involved in transport in the form of taxis, hire cars and auto-rickshaws, especially in cities where tourism is a major industry.

Yet another aspect of scaling up would be to replicate the model in other cities. This can be done either through expanding the area of operation of CARE, or by using CARE as a nodal organization to oversee the work of other contracted NGOs. Some or all of the original *Chayan* sites can be fine-tuned to serve as Demonstration and Training Centers. Perhaps the optimal solution may well be to consider a combination of the available options for broadening the target groups and broadening geographic coverage. It must be stressed that given the high quality and impact of the CARE program in the field, the lessons from and momentum of Urban *Chayan* should not be allowed to go to waste.

E. Assessment of Overall Impact of Urban HIV/AIDS Prevention Interventions

The level of achievement varies by state; however, using the weighted average gives a useful composite value for the entire project. Therefore in the report, unless specifically stated, the overall weighted average will be used. It is noteworthy that increases in condom use expected to be achieved in 2008 have been met by 2006, an impressive accomplishment a full two years ahead of schedule, with the increased use in truckers well exceeding expectations even for 2008.

Table 2. Condom use with non-marital non-cohabiting partner

HRBG Category	Baseline 2003	Final 2006	Planned 2008
Truckers	62.0%	82.7%	72%
Urban Migrants	61.0%	69.0%	71%
FSW *	68.5%	86.7%	84%

* With paying client

Discussion: The conclusion from the data above that the *Chayan* intervention had a significant impact is not necessarily true. The population was also exposed to the ongoing NACO mass media campaign and that may well have contributed positively to the change in behavior by acting synergistically. In the absence of a control group, the results can be compared with other data that may be available from NACO and other comparable studies. It must be kept in mind, however, that studies and interventions are not common in the lower HIV prevalence groups where the impact may be more difficult to show, but the long term benefits in terms of the epidemic averted may be really significant.

In the 2006 **BSS** there are data on the reach of BCC activities. It is noteworthy that only about 60 to 70 percent of the target population had personal experience with BCC at the community level.

Table 3. Observed BCC activities at the Community level

Experience	Migrants	Truckers
Met any person talking about unprotected sex and dangers of HIV/STI	68.7%	59.7%
Witnessed any BCC event on HIV/AIDS	61.1%	56.2%

Discussion: The data suggest that while the program is working very effectively in the context of the selected sample (as evidenced by observations during field visits), the impact has not spread out to the general run of people in the same occupational or risk category. This is one category of data that might have improved if the project had run to July 2008 as originally planned.

F. Assessment of Program Inputs and Processes

1. Peer Educators (PE) All sites for truckers, migrants or FSWs, had PE. This is not surprising as the PE was a very important channel for BCC in the intervention and logically the enrollment and maintenance of PE could even be called the pivot for the entire project. The basic infrastructure was put into place right at the outset –as it should have been. A look at the budget deployment also supports this and additionally clearly brings out two aspects. The budget was spent evenly across the life of the project (except the small amount spent in the last quarter of

FY 2002 upon approval of the project in July 2002), and the budget did not fall short in any year after the decision to end the project in 2006 instead of 2008.

Table 4. Coverage of Peer Educator Program for Youth

Category	In-School Male	In-School Female	Non-School Male	Non-School Female	Total
# trained	838	1067	892	1139	3936
#Functional	614	752	545	732	2643
% Functional	73.3%	70.5%	61.1%	64.3%	67.0%

Similarly 1,727 PE were trained from amongst FSW, 2,704 from truckers and 2,847 from amongst migrants, for a total of 7,278 PE for HRBG.

Discussion: In general the Peer Educator (PE) concept has proved to be a success. They are the backbone of the program. It is important to differentiate the PE in *Chayan* from many other projects that also have persons drawn from the community called PEs, because the PEs in *Chayan* do not receive any remuneration, not even one rupee to meet their expenses in carrying out their day to day tasks as Peer Educators. If the PE accompanies a member of the community to the hospital for treatment, he/she does so at their own expense. The difference is in the high level of motivation of the PE and, as a result, how well the community responds to them. Seldom have we seen such dedication and effective behavior change communication – it is not only increasing awareness but the inculcation of real attitude change that makes the *Chayan* project stand out. In very real terms the community served has assumed ownership of the program, especially in the case of migrant, trucker and youth in school components. The other important components of the BCC intervention as well as involvement of stakeholders, sensitization of service providers, and establishing referral linkages are all essential interventions in the *Chayan* package that gain strength from the PE program.

2. Youth Resource Centers (YRC) All cities covered by urban *Chayan* have one or more fully functional Youth Resource Center. The term “fully functional” implies that they meet all the pre-established criteria about the space, community management, etc. In all, out of the existing 72 YRC, 60 are fully functional. If we go by the population norms, the project should have had 66 fully functional centers.

Discussion: The centers observed during the field visit were very impressive, both how they were functioning and the knowledge and attitude of the members. The community apparently felt that it was their own center. This is all the more noteworthy as the focus of the Urban *Chayan* project’s youth intervention is on the poorest sections of the community.

3. Prevention and Management of Sexually Transmitted and Reproductive Tract Infections is one of the prime objectives of the project and it was addressed adequately in the field by focusing on three aspects. The first related to generating an awareness of the problem of RTI/STI and emphasizing both the long-term consequences of the condition and its preventable

and treatable nature. The second action was to establish a network for treatment by interacting with existing health care providers, generally the public sector health facility in the city. The third dimension was to make condoms available. As treatment of RTI/STI was an important objective, another indicator reviewed was treatment given to those referred for care. These data would only have been generated once the intervention started so the baseline level is not germane. However, final survey indicators are available and clearly indicate that when patients were referred, they got treatment and the vast majority achieved cure.

Table 5. Referral and Treatment Outcomes for STIs (Urban)

HRBG Category*	Obtained medicines	Completely cured
Truckers	98.3%	90.8%
Migrants	91.2%	89.8%
FSW	93.5%	82.2%

It is also important to assess if there was any change in treatment seeking behavior. Fortunately information was available showing increases between the baseline and final survey (Table 6).

Table 6. Treatment Seeking Behavior for STIs

HRBG Category*	Baseline 2003	Final 2006
Truckers	72.0%	87.5%
Migrants	70.8%	85.1%
FSW	70.9%	82.4%

Discussion: These results are very significant. The early detection and management of STIs are concrete steps that can be taken to not only improve the quality of life of the concerned persons, but to enhance HIV/AIDS awareness and prevention. It is also well established that a very large proportion of those actually infected with STIs do not seek appropriate medical intervention, and when they do it is frequently at a late stage. As the numerator in this case is the persons seeking treatment among those referred to a health care facility and the denominator is the total number referred to a health care facility, the data do not suffer from the limitations highlighted earlier and are actually quite robust.

4. Access to Condoms

Free Condom Supplies were available at all sites. In brothels, there were two types of condoms, the more expensive better packaged condom which was sold, and the free supply. At most other sites, such as migrant worker and trucker peer educator sites, a free supply of condoms was available, generally in a condom box. Through December 2005, CARE reported that 1,350,062 condoms had been distributed (11).

Social Marketing of condoms was built into the program. In the brothels, the madam purchased condoms from the market and made them available to the girls at a cost. The cost was borne by the sex worker and the client was not asked to pay. The madam made a healthy profit on each condom purchased by the girls! Poorer girls, those not so much in demand, used the free supply. In the rest of the program both types of condoms were available with depot holders. In Bharatpur there was use of condom vending machines placed at many strategic sites. These were looked after by peer educator and community stakeholders. The local person in whose premises the machine was situated had the key to the dispenser and gave Rs 4 for each condom sold to Hindustan Latex Limited for replenishing the stocks and kept Rs 1 for himself. Through December 2005, CARE reported that only 115,390 condoms had been sold (11).

Discussion: Field observations in both brothels and at condom depot holders in the community serving truckers and migrants are that there is a healthy utilization of this resource and a keen interest by the stakeholders. Demand has been created and all segments of the community seem to have accepted the input.

Information on the condom uptake by site could be collected by CARE and used as a monitoring indicator. After all, condoms are replaced as they run out in the free distribution boxes and upon payment in the social marketed category. Conclusions can be drawn about how the program is functioning in that particular area, and action can be taken accordingly. Poorly performing areas can be the focus of increased supervisory visits and inappropriately sited venues can be changed (this is especially relevant to Condom Vending Machines where they are available).

5. NGO partnerships The outreach program was based on partnerships with 37 NGOs as reported by CARE in the End of Program Documentation (11). The partners met in the (limited) field visits were extremely motivated and obviously carrying out exemplary interventions in the field.

Discussion: CARE noted in the End of Program Documentation that because HIV was a new sector, finding suitable partners with experience, orientation, and commitment was difficult especially for work with marginalized and stigmatized HRBG like FSWs (11). Some of the partners were brought in very late which delayed implementation in a few cities. In future versions of this and similar projects it would be useful to give preference to local NGOs as their presence in the field is likely to continue even after outside funding is discontinued.

6. Capacity Building followed the usual cascade pattern of starting with Training of Trainers (TOT) from the main project staff such as the managers at central and regional level and working down to increasing numbers at the periphery, ending with the PE. The National TOT for Urban *Chayan* was held at Durg in CG. Capacity building so far appears to have been largely that connected with the operational elements of the project. Some capacity building with key stakeholders such as school teachers, National Cadet Corps (NCC), National Service Scheme, Scouts, media persons and government functionaries has also been held.

7. Behavior Change Communication (BCC) can only be judged by its impact. Based on the team's rather limited field experience, the BCC is one of the strong points of Urban *Chayan*. In fact it is the BCC strategy, especially via the PE, that makes the field work so very remarkable.

We also had the opportunity to see two BCC programs – one in a girl’s school where they performed a song written and composed by the group and another at a Youth Resource Center where they performed a street theater. Both were impressive because they did not have any wrong concepts, had good messages and were performed with enthusiasm. The latter had an audience and the reaction was very favorable. In general the target audiences were extremely well informed and much more important seemed to have internalized the HIV/AIDS prevention messages. Attitude change was very obvious. If the sample we saw in the two states can be scaled up or replicated, we would be sanguine that India would go the Uganda way and stop the epidemic!

8. Advocacy The *Chayan* local teams in the two cities visited have made a strong impression on local decision makers and seem to have consciously expanded their area of influence by making themselves available to local official stakeholders. Besides the health system, in one location we met the NCC’s Group Commander. He and his deputy were both most enthusiastic about the program and the ability of the team as communicators. They pointed out that they now would not hold a camp for the cadets without ensuring that the CARE staff was available to help. Wider dissemination of the *Chayan* principles and achievements would have been beneficial and contributed to achieving the policy influence objectives of the project.

9. Monitoring and Evaluation is the most disappointing aspect of the Urban *Chayan* intervention. The flaws in design and conceptualization are unfortunate because they militate against the demonstration of the efficacy of the really excellent program in the field. One aspect of monitoring that merits special mention is the role of Delhi Headquarters staff and Regional Headquarters staff in routine monitoring of the work in the field. While visits were made by senior staff, neither at Bharatpur nor at Agra could any record of the salient observations of the visiting staff, nor their suggestions for correcting/strengthening the work in the field be located. It appears that there is no written feedback from supervisors. This is unusual and should be corrected. In fact all supervisory staff should have a formal visit schedule and should record their observations. Their observations and suggestions for correction or strengthening should be shared with the field staff and the regional headquarters. Supportive supervision by CARE staff is important and must not be overlooked. Systems should be set up to make this a reportable activity.

The methodology for the **BSS** was disappointing. There does not seem to have been any consideration of the requirement to evaluate the effect of the *Chayan* intervention. We will elaborate on this point. Perhaps understandably no control group was included originally. To attribute the benefits in awareness and risk reduction indicators entirely to the *Chayan* intervention is difficult in the absence of a comparison with similar studies conducted in India. After all, a parallel intervention was going on at the same time which also applied to the *Chayan* beneficiary groups. (Consider the general awareness campaign that was going on as a part of NACP, and several targeted interventions that may have, for example, impacted on truckers while they were outside the 22 selected cities. This is a relatively small problem but it should have been anticipated).

Much more important is the fact that the inclusion criteria for the final **BSS** were problematic. In the case of truckers and migrants, those that were not judged as ‘high risk’ were screened out

before proceeding with the in-depth **BSS**. Discussions with person responsible for data management and analysis at CARE India indicated that some 1,500 truckers were initially screened in CG, and then only 489 were included in view of their continued high risk behavior. The same screening procedure was carried out at all survey sites. Thus, all those truckers who changed their life-style to a low or no risk pattern due to the *Chayan* intervention were eliminated from the final sample! Given this scenario it is difficult to use the data to make any meaningful conclusions.

To add further interest to the interpretation of the **BSS** data, at one point the denominator used is the entire 1,500 sample for one site and in the rest of the cells in the same section it is the screened population. And the exact number of the screened population is not stated anywhere. (Amended tables were ultimately provided to the team but the draft final evaluation report had already been submitted by then). The point is not only that the data were inadequately tabulated, but that apparently they had not been carefully looked at in-house before submitting to the evaluation team.

The evaluation team's deliberations were limited to the data made available to them, and the team had no way of knowing about data not provided to them. These shortcomings may explain why there are 38 pairs of cells where the final results in the 2006 data are worse than the equivalent baseline figure in 2003. For example, amongst migrants in JH compared to the baseline of 19.6% in 2003, at endline 76.8% had sex with a non-regular partner or commercial sex worker within the last 12 months. This figure has risen in every state to a lesser or greater degree. Even basic indicators such as the percentage of those FSW that had heard of HIV/AIDS and knew that condoms reduce the risk of HIV fell in JH from a baseline of 90.5% to 79.9%. In Delhi, the use of condoms by FSW with non-paying clients fell from 78.3% before the intervention to only 24.9% in 2006. These counterintuitive results need to be explained and the CARE India office would benefit from paying careful attention to the information generated by their evaluations.

There are other examples which reflect a poor attitude by CARE to the use or usability of data provided. For example, refer to the table entitled "Urban *Chayan* – Achievements against Milestones – High Risk Behavior Groups – FY 05". Firstly the table does not refer to Fiscal Year 05 but to FY 03 to FY 05. The title is misleading. The point will be elaborated with a few more examples, though such instances were present on nearly every page of background documentation provided by CARE. The program was initially funded in July 2002 (US FY 2002) but the budget table from CARE shows the first budget year as FY 2003 and does not reflect the obligations made by USAID in the last quarter of FY 2002. Confusion arises because, as we were informed, CARE India has its own fiscal year that runs from July to June! But this is all the more reason for correctly labeling budget tables. If the Milestone table CARE provided for Urban *Chayan* is examined, it will be noticed that the first achievement is that 76 out of the 107 sanctioned staff positions had been filled in FY 03. However, in the subsequent pages on future years there is no mention of the remaining 31 positions. Were they left vacant or were they subsequently filled? At serial 5 on the first page for FY 03, the achievement is that the mapping exercise for HRBG was completed for 4 Urban *Chayan* states. On the next page this is also listed as an achievement for FY 04 at serial 2. At serial 7 on the first page for FY 03, it is pointed out that setting performance targets for *Chayan* was not completed. At no place

subsequently is setting the performance targets mentioned. One can either assume that this was never completed or that it was completed at some unspecified time? Actually it is very probable that all the lacunae were filled in the subsequent year, but the way the Milestone table is prepared is not action and evaluation friendly and raises questions about CARE's ability to manage for results using such tools.

Discussion: The contrast between the excellence of the work in the field as assessed both from personal observations and the data generated by the baseline and endline surveys, and the many lacunae observed in the way the data were presented by the CARE India headquarters is remarkable. Yet the district teams and the field performance could only have demonstrated their outstanding work with the support and guidance of the entire team. It is unfortunate that this was not apparent in our interactions with parts of the team. When these issues were discussed with the CARE India Delhi staff they pointed out that the guidelines for the BSS methodology and procedures were provided by a Technical Advisory Group and these procedures had not been designed by the CARE team. This does not absolve the CARE team of the responsibility for raising questions, analyzing the data comprehensively and sharing all available information for the final evaluation.

G. Potential to influence the implementation of HIV prevention interventions of SACS

It bears repeating that we have not seen any HIV prevention field program that is as impressive as the CARE Urban *Chayan* intervention. The degree of not only mere awareness generated but the very real change in attitude and motivation is extraordinary. Discussions with the City level government machinery ranging from the District Collector, Chief Medical Officer, Deputy Chief Medical Officer (HIV/AIDS), Medical College Principal and faculty, ICDS staff, staff from the education department and even the Group Commander of the NCC were all unanimous in expressing that the program had been of benefit to them and changed their thinking and perceptions.

The same is not true of the perceptions at the more senior level. Discussions with the Principal of the Agra Medical College brought to light the interesting point about the visibility of the urban program. It is relevant to note that he is also the Head of Preventive and Social Medicine. He said that there was an Urban CARE program in Agra but he was not really aware of what was being done. This is in spite of the fact that one of the selected migrant sites is opposite a gate into the Medical College campus and that the CARE program uses the HIV/AIDS Voluntary Counseling and Testing center in that college and also refers patients for RTI management and care. Discussion with the Director of Rajasthan SACS brought out much the same thing. He pointed out that he earlier had no idea about what was being done in the field, and even when he had gone to Bharatpur in connection with an OXFAM project, no one had invited him to see the CARE work. Until recently when he requested it, no one from the CARE/Jaipur or Delhi offices shared any reports or data with his office. Similarly the officer responsible for communication at NACO Delhi was not aware of the CARE Urban *Chayan* intervention – a sorry fact as BCC is an essential aspect of the project.

At the State SACS level the earlier mapping exercise conducted by CARE contributed to the State-wise mapping conducted on behalf of Rajasthan SACS (and no doubt was used in the

other States also). Not only were the data used, but the experience and insights were shared with the State and the contractor for the State-wide mapping. As suggested by NACO, a CARE representative was also invited to meetings to work out the State Program Implementation Plan (PIP) for NACP III. These facts support the contention that *Chayan* had an effect on the State plan and NACP III. It was after these meetings that the Rajasthan SACS director requested and started getting reports from the *Chayan* team. At the local level the response of government stakeholders was much more spontaneous and positive. Concerned government stakeholders were unanimous in saying that the program had contributed a lot and the CARE team was always ready to help in any way possible.

H. What is the extent of unfinished work in HIV/AIDS in RACHNA program areas?

Statistics available from the baseline and endline surveys reveal specific facets that have fallen short of stated objectives. However, as every field worker knows, it is the final few who are the most elusive and one can keep trying to gain higher and higher levels of success with more and more effort. A part of the unfinished agenda which would perhaps have been addressed in the final two years of the project could have been the extension of the field experience to greater policy influence. While enough informal evidence of the impact on government programs is beginning to emerge, this effect would possibly have become more obvious, if the interventions had continued for the remaining two years. But this is a small advantage. It is much more important to go ahead and seek resources to scale-up from what has been achieved so far.

I. Recommendations for Urban *Chayan* HIV/AIDS Future Programs

This final evaluation has provided valuable insights into the integrated RACHNA program. Our recommendations for the Urban *Chayan* Project are as follows:

CARE/India Close-out and Transition of RACHNA Services

1. Since the absence of a comparison group in Behavioral Surveillance Surveys (BSS) used to evaluate the program limit the ability to attribute impact to *Chayan*, CARE should obtain national data from NACO and data on the impact of other similar projects working with the same target groups in low prevalence states to use for comparison.
2. CARE should update the technical knowledge of its staff and Peer Educators to include injecting drug use as a major cause of blood mediated transmission and not just blood transfusions.
3. Work with USAID and the GOI to prepare a transition plan for all services that end when RACHNA ends in September-October 2006.

In General for CARE

1. The sheer excellence of the *Chayan* HIV/AIDS prevention program in the field mandates that CARE should raise resources for its continuation and expansion and for transferring the know-how to other NGOs.

2. The target groups should be expanded to include MSM. In cities with significant tourism, such as Agra, programs to prevent HIV/AIDS should include staff of small hotels and guest houses and transport staff, such as taxi and auto-rickshaw drivers.
3. Monitoring and Evaluation and Supportive Supervision should be improved.

USAID/India

1. Investment in HIV/AIDS prevention among HRBG in low prevalence states should continue in order to arrest the HIV/AIDS epidemic in India.

Government of India National AIDS Control Program

1. The CARE Urban *Chayan* HIV/AIDS prevention program has demonstrated successful improvements in knowledge, attitudes and practices among High Risk Behavior Groups and Youth and the lessons from it are too good to waste. Scaling up the project to other similar groups would be of benefit to the national effort to contain the epidemic. One possibility would be to use CARE as a nodal organization to transfer skills to and oversee the work of other contracted local NGOs.
2. The excellent Peer Educators trained by CARE should be used as trainers or motivators in other HIV/AIDS prevention projects.

Annex 1 Documents Reviewed

CARE/ India, USAID/India and other Stakeholders provided a large number of documents to the final evaluation team. The following are the documents that the team consulted and found most relevant to the evaluation.

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ANNEX 2 Methodology for the Final Evaluation of RACHNA

The goal of CARE's comprehensive final evaluation, of which this final evaluation was a part, is to assess whether the RACHNA program achieved the committed results in each of the impact areas as proposed in the design of INHP II and *Chayan*. The objectives of the overall final evaluation are to:

1. Assess the achievements of the program against committed results.
2. Determine the main reasons for achievement / lack of achievement of results, within the scope of the program design and strategy.
3. Determine whether the program benefits of RACHNA reached different vulnerable/marginalized groups, as proposed in the program design.
4. Assess the effectiveness of program management, monitoring and resource utilization.
5. Assess the feasibility of the strategies/activities for community empowerment and institutional strengthening in the context of the phase-out planned in the next phase.
6. Make recommendations for future programming in current geographic and intervention areas.

The Final Evaluation Team

The independent, external team hired by CARE and USAID conducted the final evaluation of the RACHNA program and sought to answer key questions proposed by CARE and USAID concerning: a) results and contributory factors, b) policy/program impact, c) program management, d) monitoring and evaluation, e) program graduation specific to INHP only, and f) future programming (see list of Key Questions at end of this annex). The evaluation team brought global and national perspectives, understanding of issues around programming at scale, experience with program implementation and evaluation and knowledge of current state-of-the-art in each technical area. The team included members with maternal and child health, reproductive health, HIV/AIDS and nutrition expertise, with familiarity with Food for Peace/Title II issues, with experience with large integrated programs, and data analysis, interpretation and writing skills. The team members were:

- Mary Ann Anderson – Team Leader, Management, Nutrition
- Narendra Arora – Process Evaluation, Monitoring and Evaluation, Evidence Base
- Alfred Bartlett – Maternal and Child Health
- Rajesh Kumar – Policy and Evidence Base
- Renu Khanna – Family Planning, RTI/STI, Gender, Equity
- Lalit Nath – HIV/AIDS
- Roberta Van Haeften – Title II Supplementary Feeding, Graduation, Food Transition, Supply Chain Management

The following representatives of the government of India accompanied the team during the final evaluation: Mr. A.K. Goel and Mr. Saroj Adhikari, MOWCD and Dr. Sangeeta Saxena, MOHFW.

Data Sources for Final evaluation

The primary sources of data for the evaluation included:

1. CARE/India's End of Project Documentation-National Documentation
2. Draft findings from representative, program-wide, population-based, **quantitative** surveys, with data collection by survey research firms contracted by CARE, namely:
 - Rural household surveys sampled from all RACHNA program blocks, districts, and states (except Bihar) to measure changes in key reproductive and child health, and nutrition indicators. Endline for INHP I in 2001 served as Baseline for INHP II. Separate Baseline conducted in 2003 for *Chayan* Rural and *Chayan* Urban Youth. Endline survey for INHP II and *Chayan* Rural conducted in 2006. Weighted average from state-level estimates provided national-level estimates used by the evaluation team for baseline and endline impact data on Performance Tracking Table Indicators.
 - Behavior Surveillance Surveys (BSS) among high risk behavior groups in 22 *Chayan* Urban cities to measure changes in key HIV prevention indicators. Baseline 2003 and Endline 2006. Weighted average from state-level estimates provided national-level estimates used by the evaluation team for impact data on Performance Tracking Table Indicators.
3. Draft findings from Evaluation Research by Johns Hopkins Bloomberg School of Public Health and King George's Medical University– 3 **quantitative** independent studies of CARE program impact, each conducted in one intervention and one comparison district on:
 - Newborn Health and Survival in Barabanki, UP Intervention District vs. Unnao Comparison District with Baseline from January-May 2003 and Endline from January-March 2006.
 - Nutrition Interventions in Barabanki, UP Intervention District vs. Unnao Comparison District with Baseline from January-February 2004 and Endline from January-March 2006.
 - Nutrition Interventions in Karimnagar, AP Intervention District vs. Rangareddy Comparison District with Baseline from January-February 2004 and Endline from January-March 2006.
4. Draft findings from an external, independent **qualitative assessment** of key RACHNA program processes and their links to results, with a focus on implementation from the district level down to community level. The assessment was conducted in March 2006 by a team from the Johns Hopkins Bloomberg School of Public Health and the IndiaClen Program Evaluation Network through field visits and interviews in 3 RACHNA program states and 2 districts in each, including visits to 35 AWCs.
5. Findings from key informant interviews and observations of the final evaluation team, including field visits to project sites in 5 states and 2 districts (see Table at end of Annex).

Secondary sources of data included previous evaluation reports, project design and operational strategy documents, annual results' reports, national and state process documents, monitoring data from HMIS, data from annual rapid assessments (RAPS) in Replication Sites in one panel district in each of the RACHNA states except Bihar, and documentation of district-specific experiences and results as individual stories or case-studies based on RAPS or mini-RAPS data collected by project staff in the last year of the program. The RAPS data were collected in November 2003 (R1), July-September 2004 (R2), and September-November, 2005 (R3) in one district each from the states of Andhra Pradesh (Khammam), Chhattisgarh (Kanker), Jharkhand (Lohardaga), Madhya Pradesh (Seoni), Orissa (Kalahandi), Rajasthan (Bikaner), Uttar Pradesh (Rae Bareilly) and West Bengal (Bankura) by survey research firms contracted by CARE. While there are some limitations to using the RAPS data as described well in the RACHNA Midterm Review Report, the final evaluation team found them useful as a secondary source to complement findings from the more reliable primary data sources described above (6).

In its deliberations, the team gave precedence and more weight to changes seen in the program-wide, representative baseline and endline surveys, but only data for the Performance Tracking Table Impact and Outcome Indicators had been analyzed from this source and made available by the time of the final evaluation, while a wealth of other data will eventually be analyzed.

Furthermore, due to the absence of a comparison group in the program-wide impact evaluation surveys it is difficult to attribute all the changes seen solely to the impact of the RACHNA program. The final evaluation team acknowledges that CARE's evaluation design as approved by USAID did not include comparison groups, except in the case of the Evaluation Research studies, because they were implementing interventions whose clinical efficacy had already been established in research trials by others, and it was not feasible or cost-effective to include comparison groups in evaluation surveys of such large programs. Given these limitations, it was invaluable for the final evaluation team to also consider the findings of the Evaluation Research studies which did have comparison groups, and data on a number of other outcome indicators for service delivery and behavior change that RACHNA sought to improve. The RAPS provided another useful source of **quantitative** impact data that the final evaluation team could triangulate with the other two primary sources of **quantitative** impact data mentioned above. Any changes seen in more than one of the three quantitative impact data sources took on more significance than if seen in only one source (i.e. triangulation). However, since the RAPS were not designed to provide state-level or weighted national-level estimates, the final evaluation team needed to decide on criteria to use to determine whether changes seen in RAPS panel districts over time were indicative of likely similar program-wide changes. Furthermore, for the Evaluation Research that was conducted in only one or two intervention districts criteria were needed to determine the significance of the changes for use in the program-wide final evaluation. The criteria agreed upon are as follows:

BOTH OF THE FOLLOWING CRITERIA SHOULD BE MET FOR RAPS:

1. The change in the 2 years between R1 and R3 should be at least a 10 percentage point change and at least a 5 percentage point change should be seen between R2 and R3. For all the indicators with R1 and R3 data the team reviewed the change that had occurred between R1 and R3 (over approximately two years). Changes over the short one-year time period

between R2 and R3 were only used for a few indicators with no R1 data. Unfortunately the statistical tests of significance of changes between R1 and R3 had not been calculated in the RAPS data tables given to the final evaluation team by CARE. However, tests of significance were available for the R2 vs. R3 rounds mainly based on Mantel-Haenzel Chi-square tests. The RAPS data table footnote stated that “The significance of R1-R3 changes has not been tested, but should be apparent in most cases when compared to R1-R2 changes.” It was beyond the scope of the final evaluation team to run statistical tests of the data comparing R1-R3. Instead, we reviewed the R2-R3 changes to determine on average the minimum percentage point difference associated with a 99% confidence level ($p < .01$). This conservative confidence level was chosen to compensate for the design effect due to the fact that the samples for R1 were much smaller for the 0-5 months age group and two-stage cluster samples, whereas the samples for R2 and R3 were much larger one-stage cluster samples. Larger differences would be needed to reach statistical significance given this design effect. In general, at least a 5 percentage point change was needed for the 99% confidence level over the one year between R2 and R3. Therefore the team doubled the change expected to be significantly different over the two year period from R1 to R3 to at least 10 percentage points.

2. The change should be seen in at least 4 of the 8 RAPS panel districts (half of the RACHNA program states) with no more than one other panel district changing equally (e.g. at least 10% point R1 vs. R3 or 5% point R2 vs. R3) in the opposite direction. In the case of *Chayan*, the change should be seen in at least 2 of the 4 RAPS panel districts (half of the *Chayan* states) with no more than one other panel district changing equally in the opposite direction.

FOR THE EVALUATION RESEARCH:

3. For the Newborn Evaluation Research in UP, only change in indicators where the difference in differences between intervention and comparison district over the 3 year study period is significant at $p < .05$.
4. For the Nutrition Evaluation Research only change in indicators where the difference in differences between intervention and comparison district over the 2 year study period is significant at $p < .05$, for both study districts in AP and in UP in order to represent more of the CARE program than data from one intervention district in one state can.

In addition, the team drew assistance as needed from a panel of national and international technical experts familiar with the CARE program. Also, the members of the qualitative assessment team presented their findings to the final evaluation team. The final evaluation team attended two meetings with the Technical Advisory Group (TAG) for the quantitative baseline and endline surveys. A small, separate team led by an international health economist gathered data and analyzed findings on costs of RACHNA in close coordination with the final evaluation team.

Planning, Preparation and Orientation: The evaluation team conducted team planning meetings to develop a comprehensive understanding of the program and to design the evaluation methods and tools before the field visits. The evaluation team participated in briefings by RACHNA staff for a thorough orientation to the program, clarifications and opportunities to finalize evaluation processes and fill support needs. The team also met with USAID India to understand their expectations from the evaluation. Before starting the field visits, the team leader shared with CARE India and USAID/India an outline for the evaluation report, obtained feedback, and finalized the outline accordingly.

Field Visits: During field visits the team sought answers to questions emanating from the analysis of quantitative data, the qualitative assessment, the interface with CARE staff and other stakeholders and to directly inform recommendations. The team was divided into sub teams and made visits of 2-3 days each to five states to assess program implementation (see Table at end of Annex for places visited). The team selected half of the states as those on the “better” end of program impact and half of the states as those on the “lower” end of program impact. For each state, we sat with CARE staff to plan the districts to be visited, excluding districts that were in the RAPS, or the Evaluation Research or the Qualitative Assessment and trying to visit two districts per state for the rural RACHNA program. An exception was the visit to Karimnagar district in AP despite it being in the Evaluation Research, because of the need to see the Local Food Model there. We asked CARE to take the team to at least one block identified for graduation from the Title II program by September 2006 and one non-graduation block. Once arriving at the blocks, the final evaluation team picked which anganwadis to visit from the total list of anganwadis, deliberately selecting some demonstration, replication, and other anganwadis. Twenty anganwadis were visited with Nutrition and Health Days observed at three AWCs (two in Jharkhand and one in Chhatisgarh). For the urban *Chayan* program the final evaluation team chose the two program cities to be visited but let CARE pick the sites within those cities. CARE state and district staff accompanied the team as well as representatives from the MOHFW and MOWCD. Interviews were held with CARE RACHNA staff (district and state levels), and state, district and block level functionaries of ICDS and RCH including AWWs, ANMs, Supervisors, CDPOs, District Program Officers, Medical Officers, District Medical Officers, as well as others involved in the CARE program including Change Agents and Reproductive Health Change Agents, private health providers, self-help groups, community-based women’s groups. Interview guides were prepared by the team to standardize questions to be asked at different levels in each of the states.

Interviews at National Level: Meetings were held in Delhi with CARE staff, USAID, MOHFW, MOWCD, PSI, NACO, UNICEF and the World Bank. The team prepared interview guides in advance for the meetings with USAID and the GOI.

Presentation of Findings: The team conducted debriefings with CARE, USAID India and the Government of India (jointly for MOHFW and MOWCD and separately for NACO). Copies of the PowerPoint presentations and a set of draft recommendations were shared with CARE/India and USAID/India and the final report prepared after incorporating the feedback.

Timeline for Final Evaluation: The external team worked in India April 2-30, 2006. The Final Report of the evaluation was available by May 31, 2006.

RACHNA Final Evaluation Team Field Visit Details

State	Program Districts	Program Blocks	Team Members
Rural RACHNA		Graduation Blocks in Bold	
Jharkhand	East Singbhum West Singbhum	Patamda Khuntpani	Al Bartlett & Roberta Van Haeften
Andhra Pradesh	Medak Karimnagar	Narsapur Gajwel Bhimdevarapally Sircilla	Al Bartlett Roberta Van Haeften
Chhattisgarh	Bastar Durg	Tokapal Patan	Renu Khanna
Uttar Pradesh	Sitapur Kanpur Lucknow Agra	Kasmanda Sarsaul Malihabad Chinhat City- Urban <i>Chayan</i>	Renu Khanna & Mary Ann Anderson Renu Khanna Lalit M. Nath
Rajasthan	Bharatpur	City- Urban <i>Chayan</i>	Lalit M. Nath

Proposed Key Questions for Final Evaluation of RACHNA

Areas of Assessment	Key Questions
1. Results and Contributory Factors	<p>1. Did RACHNA achieve the committed results under each of the intervention areas?</p> <ul style="list-style-type: none"> ▪ Why did some states/districts/cities achieve greater results than others in different areas? <p>Did the program benefits reach equitably to poor and socially marginalized populations? Were female and male children reached equally (or better, in proportion to their relative need)?</p> <p>2. What are the factors that influenced the achievement or non-achievement of committed results?</p> <ul style="list-style-type: none"> ▪ How effective was the design of RACHNA to achieve the committed results? Did the changes/refinements in design made over time contribute to or constrain results ▪ Which of the program strategies/ approaches/processes have been most effective in achieving changes in child health and nutrition, reproductive health and HIV prevention? ▪ What factors in the external environment may have influenced the achievement or the lack of achievement of results in RACHNA? Administrative and systemic, social, political and policy factors?
2. Policy / Program Impact	<p>1. How did RACHNA contribute to improvements national programs for child health, nutrition, reproductive health and HIV prevention?</p> <ul style="list-style-type: none"> ▪ What improvements were made in ICDS, RCH and NACP in RACHNA program areas ▪ What influence did RACHNA have on ICDS, RCH and NACP beyond the RACHNA program catchment areas? • What lessons from RACHNA are useful to the national programs including ICDS, RCH and NACP III? • Do policy-makers and program planners at national and state levels perceive the evidence and experiences from RACHNA valuable for national programs like ICDS, RCH and NACP III? <p>2. Was the evidence base sufficient to support CARE's advocacy positions, where such positions are clearly defined?</p> <ul style="list-style-type: none"> ▪ What could be done with respect to the nature and quality of data produced to assure that program and policy influence is supported by sufficiently strong evidence to support such influence?
3. Program Management	<p>1. How effective were the management systems in RACHNA at all levels to implement the program in a timely and effective fashion?</p> <ul style="list-style-type: none"> • How appropriate was the management structure for RACHNA at national, state and district levels for the chosen operational strategy? • Was the management system able to implement changes recommended by the mid-term evaluation at the state and district level in a timely fashion? • Were all technical and management skills required for the effective implementation of the program acquired (in CARE or through TA)? Were there significant gaps? <p>Did the management arrangements between CARE and the sources of technical assistance effective in facilitating the effective identification of priorities and use of technical assistance?</p>

Areas of Assessment	Key Questions
	<p>2. How did the external changes in program management influence the program implementation and performance?</p> <ul style="list-style-type: none"> ▪ How did integration of Chayan interventions influence the performance of both INHP and Chayan ▪ What impact did the discontinuation of imported food had on INHP and RACHNA ▪ How did the changed resource levels in Population funding affect implementation ▪ How did the reduced duration of Chayan implementation influence the progress of implementation and results in Chayan
<p>4. Monitoring and Evaluation</p>	<p>1. How effective are the design and methodology used for evaluations and measurements in RACHNA?</p> <ul style="list-style-type: none"> • Are the monitoring indicators and processes used appropriate? • What changes were made in the program monitoring systems/focus (including additions) over the life of activity? Were these changes useful and appropriate? • Was the level of effort expended on M&E appropriate to meet requirements and for program usefulness? • How was the routine monitoring data used to improve programs? How could the link between monitoring data and program improvement be itself improved?
<p>5. Program Graduation (Specific to INHP only)</p>	<ul style="list-style-type: none"> ▪ What has been progress made against the plans on program graduation and commodity technical assistance? ▪ Are the blocks identified for graduation in INHP, likely to reach the thresholds of system responsiveness and community empowerment envisaged?
<p>6. Future Programming</p>	<p>1. What are the critical elements to be considered for designing the next title II program to facilitate a smooth phase-out of title II resources?</p> <p>2. What is the extent of unfinished work in reproductive health and HIV prevention interventions in RACHNA program areas</p> <ul style="list-style-type: none"> ▪ What should be the key intervention areas that programs such as RACHNA should focus in future considering the programming context, current results and the changing epidemiological trends? ▪ Within these broad intervention areas, what would be priority elements? <p>3. What are the critical considerations for design, advocacy and resource allocations while considering a next phase of program similar to RACHNA?</p> <ul style="list-style-type: none"> ▪ What changes in the implementation strategies/approaches could be considered for future programming for maximizing results? Specifically address matters of integration and working with partners and other programs in the private sector. ▪ What are the recommendations for making monitoring and evaluation systems more appropriate in future programs? What would be the recommendations to assure that advocacy positions and policy influence are evidence-based and effect is attributable to the intervention being promoted? ▪ What recommendations if any are warranted for building cost evaluations into future programs?

Annex 3 Suggestions for Future Reproductive Health Activities in *Chayan* or Other Programs

What more needs to be done?

- Training sessions to improve use of IEC/BCC material by CAs, AWWs and ANMs during sector meetings as well as supervision during home visits can be stressed in the final five months of the project. Reporting of and treatment seeking for RTIs can be increased by better counseling. Targeted counseling for use of contraceptive methods can be done with IEC material during home visits.
- Continue the focus on strengthening sector/PHC level convergence between ICDS and Health departments. This will improve coordination for free contraceptive supplies availability, referrals for RTIs/STIs, safe deliveries and immunization. This recommendation is for the remaining project period as well as for the future.
- Increase male involvement in the existing program. Partner treatment needs to be emphasized in sector and PHC meetings. Emphasize inclusion of Male Multi-Purpose Health Workers (MPW) in sector/PHC convergence meetings. The existing CAs, RHCAs, and network of CBOs can be encouraged to motivate involvement of 'target' men in NHDs. During home visits, the AWWs and Supervisors can make special efforts to talk to the significant males in the family about family planning, care in pregnancy and safe deliveries and treatment seeking for possible RTI/STIs.
- Increase access to RTI services either through RCH and other camps, or regular clinics at PHCs/CHCs. In the next six months through the PHC meetings and District level coordination, the RACHNA team should ensure that the existing RCH camps are not reduced to sterilization camps and are equipped to provide RTI services including provision of medicines. Monitoring of medicine supply at the PHCs and CHCs should also be done. ANMs need to be oriented afresh in their role in RTI/STI referrals, with ongoing quality checks on advice they give.
- In a future project, CARE can develop small pilot studies to evaluate the involvement of the private sector through public-private partnerships including testing how quality standards can be ensured and costs regulated.
- Systematically document and consolidate RACHNA's experience in facilitating the provision of RTI/STI services at the primary level, as well as demand generation, in the next five months. This experience will be extremely useful to inform strategies in NRHM and RCH II and should be continued in the future.
- Community processes: Strengthening good CAs and RHCAs, CBOs and PRIs to create enabling conditions at the community level, and to generate demand for FP and RTI/STI services as well as to monitor quality of the program and accountability of service providers will be extremely useful for the NRHM. Systematically evaluate their effects on program outcomes.
- Capacity building of ANMs to improve the quality of Family Planning counseling and problem solving, IUD insertion skills and their role in RTI/STI awareness creation and referral should be a focus in a future project. The ANMs at this point in time do not seem to be sufficiently engaged with these issues.
- Add a focus on improving adolescent girls' reproductive health and nutrition.

Annex 4 Interviews and References on RACHNA's Policy and Program Influence

S. No.	Name	Designation/Organization	Discussion Topic
1.	Dr. Adarsh Sharma	Consultant, FANTA, New Delhi	ICDS Curriculum
2.	Dr. Rukhsana Haider	Regional Adviser (Nutrition), SEARO, WHO, New Delhi	Nutrition
3.	Dr. Hashim Malik	National Polio Surveillance Project Office, New Delhi	Routine Immunization
4.	Ms Sandhya Rani	Deputy Director (ICDS), Andhra Pradesh	MIS
5.	Mr. Eric Etagbo	Project Officer (Nutrition), UNICEF, New Delhi	Nutrition
6.	Mr. Harsh Mandir	Second Commissioner to Supreme Court Commission, New Delhi	Supplementary Feeding
7.	Mr. Pratik Khare	Deputy Director WCD, Chhatisgarh	MIS
8.	Mr. S. P. Verma	Assistant Director WCD, Jharkhand	MIS
9.	Mr. Sunil Kujur	Secretary WCD, Chhatisgarh	Nutrition Policy
10.	Mr. B. L. Aggarwal	Secretary Health, Chhatisgarh	Nutrition Policy
11.	Dr. Rajni Ved	Consultant, New Delhi	RCH
12.	Dr. Sangeeta Saxena	Deputy Commissioner (Child Health), MOHFW, New Delhi	RCH

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14. RAPS. Outcome and Processes Related to ANC and Newborn Care.

15. RACHNA Baseline and Endline Results.

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17. RACHNA Panel and Non Panel District Stories.

Annex 5 Impact Data Tables for Final evaluation

Table 1 Significant Changes in RACHNA Intervention Districts vs. Comparison Districts from Draft Evaluation Research Findings (Table 1.1-1.11)

Table 2 Significant Changes in RACHNA Panel Districts from Periodic Assessments in Eight Panel districts (RAPS)

Table 3 Performance Indicators and Achievements of INHP II

Table 4 *Chayan* Indicator Performance Tracking Table

Table 1 Significant Changes in RACHNA Intervention Districts (Barabanki, UP and Karimnagar, AP) versus Comparison Districts (Unnao, UP and Rangareddy, AP) from Draft Evaluation Research Findings*

Table 1.1: Antenatal care (ANC) visits among mothers of children 0-23 months of age

	ANC visits	Frequency of ANC visits among mothers of 0-23 month olds (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	3+ visits	11.5	25.3	13.8	8.9	8.7	-0.2	14.0*
AP	3+ visits	86.4	95.0	8.6	84.7	91.3	6.6	2.0*
UP	Total # of mothers	2445	2399		2388	2291		
AP	Total # of mothers	2369	2289		2476	2273		

Table 1.2: Mothers of children 0-23 months of age reporting 1+ service provider home visits during the last pregnancy

	Service provider type	Mothers of 0-23 month olds reporting 1+ service provider home visit during the last pregnancy (%)						
		Intervention			Comparis on			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Overall	20.2	59.8	39.6	17.8	22.2	4.4	35.2*
AP	Overall	36.1	48.8	12.7	22.1	28.4	6.3	6.4*
UP	AWW	6.8	43.9	37.1	3.9	7.3	3.4	33.7*
AP	AWW	15.7	40.6	24.9	8.4	14.6	6.2	18.7*
UP	CA	0.8	19.3	18.5	0.1	0.1	0	18.5*
AP	CA	0.3	2.5	2.2	0.1	0.04	-0.06	2.26*
UP	Total # of mothers	2445	2400		2386	2291		
AP	Total # of mothers	2369	2289		2476	2273		

* Evaluation Research Baseline January-February 2004 and Endline January-February 2006 conducted in a partnership project between CARE/India, King George's Medical University, and Johns Hopkins Bloomberg School of Public Health

Table 1. 2.1: Third trimester pregnant women reporting 1+ service provider home visits during pregnancy
(currently pregnant women-CPW)

	Service provider type	Third trimester pregnant women reporting 1+ service provider home visits during pregnancy (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Overall	20.7	83.3	62.6	17.8	30.5	12.7	49.9*
AP	Overall	36.8	71.9	35.1	22.9	24.7	1.8	33.3*
UP	ANM	15.2	59.0	43.8	13.6	23.0	9.4	34.4*
AP	ANM	29	43.8	14.8	16.9	16.7	-0.2	15.0*
UP	AWW	8.0	67.4	59.4	1.9	9.6	7.7	51.7*
AP	AWW	21.3	70.8	49.5	13.3	12.7	-0.6	50.1*
UP	CA	0.8	32.6	31.8	0	1.1	1.1	30.7*
AP	CA	2.6	9.0	6.4	1.2	0	-1.2	7.6*
UP	Total # of 3 rd trimester CPW	237	239		214	187		
AP	Total # of 3 rd trimester CPW	155	89		166	174		

Table 1.2.2: Pregnancy advice on rest given by ANMs during home visits to currently pregnant women who received any advice

	Pregnancy advice by service provider type	Advice received (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Rest	10.7	44.2	33.5	5.8	17.2	11.4	22.1*
AP	Rest	23.5	52.4	28.9	28.3	28.1	-0.2	29.1*
UP	Total # of pregnant women who received advice from ANM	84	371		52	99		
AP	Total # of pregnant women who received advice from ANM	119	124		60	64		

Table 1.3: Receipt of any IFA tablets among mothers of 0-23 months olds during the last pregnancy

	Iron-folic acid (IFA) supplement	Receipt of any IFA tablets among mothers of 0-23 month olds during the last pregnancy (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Any receipt	62.7	75.6	12.9	56.5	55.6	-0.9	13.8*
AP	Any receipt	40.9	54.3	13.4	74.4	77.1	2.7	10.7*
UP	Total # of mothers	22445	2399		2388	2290		
AP	Total # of mothers	2369	2289		2476	2273		

Table 1.3.1: Consumption of all IFA tablets received among mothers of 0-23 months olds during the last pregnancy

	Iron-folic acid (IFA) supplement	Consumption of all IFA tablets among mothers of 0-23 month olds during the last pregnancy (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Consumed all tablets	25.3	45.6	20.3	21.5	31.8	10.3	10.0*
AP	Consumed all tablets	24.7	57.7	33.0	22.5	43.0	20.5	12.5*
UP	Total # of mothers	1534	1810		1348	1269		
AP	Total # of mothers	968	1242		1841	1752		

Table 1.4: Attendance at Nutrition Health Days (NHD) in the past 3 months by pregnant women

		Attendance at NHD in the past 3 months among currently pregnant women (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Pregnant women	1.5	38.9	37.4	0	2.2	2.2	35.2*
AP	Pregnant women	6.5	13.6	7.1	4.6	3.4	-1.2	8.3*
UP	Total # women	746	723		706	673		
AP	Total # women	584	494		634	614		

Table 1.4.1: Attendance at Nutrition and Health Days (NHD) in the past 3 months among non-pregnant women

		Attendance at NHD in the past 3 months among non- pregnant women (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Non-pregnant women	1.2	33.7	32.5	0.04	2.8	2.76	29.7*
AP	Non-pregnant women	13.4	15.1	1.7	8.50	5.0	-3.50	5.2*
UP	Total#	2288	2268		2230	2137		
AP	Total #	2270	2176		2291	2080		

Table 1.5: Supplementary nutrition use among pregnant women

		Supplementary nutrition use among pregnant women (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Pregnant women	4.7	48.1	43.4	3.7	17.6	13.9	29.5*
AP	Pregnant women	11.0	49.4	38.4	8.2	25.9	17.7	20.7*
UP	Total # of pregnant women	745	724		699	676		
AP	Total # of pregnant women	582	494		632	614		

Table 1.5.1: Supplementary Nutrition use among mothers of 0-5 months olds during postpartum period

		Supplementary Nutrition use among mothers of 0-23 month olds during postpartum period (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Mothers of 0-5 month olds	7.3	44.0	36.7	5.5	14.4	8.9	27.8*
AP	Mothers of 0-5 month olds	19.2	43.1	23.9	11.0	23.0	12	11.9*
UP	Total # of mothers	804	757		731	672		
AP		625	497		648	504		

Table 1.6: Postpartum contacts with AWW among mothers of infants 0-5 months of age

	1+ contacts	1+ postpartum contacts (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP		17.8	71.5	53.7	10.1	15.5	5.4	48.3*
AP		30.5	55.5	25.0	29.8	30.2	0.4	24.6*
UP	Total # of mothers 0-5m	803	757		724	672		
AP		620	497		642	504		

Table 1.6.1: Postpartum contacts on the first week after delivery with AWW among mothers of infants 0-5 months of age who delivered at home

	1+ contacts	Postpartum contacts on the first week after delivery (%)						Difference of ?
		Intervention			Comparison			
		Baseline	Endline	?	Baseline	Endline	?	
UP		1.8	27.5	25.7	1.1	1.9	0.8	24.9*
AP		10.5	19.6	9.1	9.2	4.6	-4.6	13.7*
UP	Total # of mothers 0-5 mo who delivered at home	665	556		621	529		
AP		172	102		271	174		

Table 1.6.2: Postpartum contacts (0, 1-2, 3+) with AWW among mothers of infants 0-5 months of age

	Number of contacts	Postpartum contacts (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	1-2	13.3	31.9	18.6	7.0	10.9	3.9	14.7*
AP		22.1	27.9	5.8	24.3	19.1	-5.2	11.0*
UP	3+	4.5	39.2	34.7	3.0	3.5	0.5	34.2*
AP								
		8.4	26.8	18.4	5.5	10.2	4.7	13.7*
UP	Total # of mothers 0-5m	803	747		724	663		
AP		620	488		642	498		

Table 1.6.3: Advice received at postpartum contacts with ANM among mothers of infants 0-5 months of age

		Advice received among all mothers who received any advice (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Any breastfeeding advice	13.1	75.2	62.1	5.7	20.6	14.9	47.2*
AP		19.4	60.4	41	6.5	21.1	14.6	26.4*
UP	Any complementary feeding advice	2.5	18.5	16	1.4	7.1	5.7	10.3*
AP		7.3	15.7	8.4	4.4	3.4	-1	9.4*
UP	Advice to have child weighed	1.9	13.0	11.1	0	2.1	2.1	9.0*
AP		14.1	33.9	19.8	28.3	14.4	-13.9	33.7*
UP	Total # of mothers 0-5 mo who received any advice	160	471		140	141		
AP		191	230		138	209		

Table 1.6.4: Advice received at postpartum contacts with AWW among mothers of infants 0-5 months of age

	Type of advice received	Advice received among all mothers who received any advice (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Any breastfeeding advice	23.8	81.7	57.9	13.6	28.6	15.0	42.9*
AP		19.3	64.5	45.2	4.2	31.4	27.2	18.0*
UP	Any complementary feeding advice	4.8	20.4	15.6	7.6	5.7	-1.9	17.5*
AP		6.0	28.5	22.5	2.8	12.9	10.1	12.4*
UP	Total # of mothers 0-5 mo who received any advice	105	509		66	70		
AP		166	256		142	140		

Table 1.7: Breastfeeding initiation among mothers of infants 0-5 months of age

	Timing of initiation	Breastfeeding initiated (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	= 1 hour after delivery	4.6	59.0	54.4	2.1	10.5	8.4	46.0*
AP		22.3	36.2	13.9	16.9	16.9	0	13.9*
UP	Total # of mothers	789	741		711	658		
AP		614	481		591	497		

Table 1.8: Prelacteal feeds given by mothers of infants 0-5 months of age

	Proportion	Prelacteal feeds (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP		91.8	44.4	-47.4	96.1	93.2	-2.9	-44.5*
AP		61.7	50.1	-11.6	69.0	67.1	-1.9	-9.7*
UP	Total # of mothers	789	750		711	661		
AP		614	481		591	497		

Table 1.9: Foods consumed in the past 24 hours among breastfeeding children 6-8 months of age

	*Food type	Food consumed in the past 24 hours (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	AWC food	0	2.5	2.5	0.3	0.3	0	2.5*
AP		0.9	2.5	1.6	2.8	0.3	-2.5	4.1*
UP	Total # of children 6-8 months	277	238		346	305		
AP		345	316		388	359		

Table 1.10: Micronutrient supplementation among children 12-23 months of age

		Micronutrient supplementation – reported from either source (%)						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	Vitamin A syrup	18.1	44.6	26.5	35.5	17.9	-17.6	44.1*
AP		55.2	60.1	4.9	47.1	42.0	-5.1	10.0*
UP	Total # of mothers	1137	1178		1095	1087		
AP		1088	1199		1160	1100		
UP	Iron tablets/syrup	8.9	63.7	54.8	6.7	1.6	-5.1	59.9*
AP		21.0	32.1	11.1	11.8	11.8	0	11.1*
UP	Total # of mothers	1127	1175		1067	1066		
AP		1086	1178		1157	1085		

Table 1.11: Mean Weight for Age Z-Score (WAZ) among children 12-17 months by sex and age

		Mean WAZ						
		Intervention			Comparison			Difference of ?
		Baseline	Endline	?	Baseline	Endline	?	
UP	12-17 months	-2.00	-2.20	-0.20	-2.09	-2.10	-0.01	-0.19*
AP		-1.66	-1.84	-0.18	-1.88	-1.88	.00	-0.18*
UP	Total # of children	1738	2124		2067	2039		
AP		2232	2272		2280	2261		

Table 2 Significant Changes in RACHNA Panel Districts from Periodic Assessments in Eight Panel Districts (RAPS)

Indicator	Round 1 (R1)→ Round 3 (R3)*
Newborn Care	
Followed the use of Five cleans at birth (among mothers of 0-5 month children delivered at home)	Seven up and one unchanged
Applied nothing the cord or umbilicus (among mothers of 0-5 month children delivered at home)	Six up, two unchanged
Delayed bath for at least three days (among mothers of 0-5 month children delivered at home)	Seven up and one unchanged
Any contact by ANM or AWW in the last trimesters (among mothers of 0-5 month children)	Four up, four unchanged
AWW or ANM present on the day of birth (among mothers of 0-5 month children delivered at home)	Four up and four unchanged
Nutrition	
Early Breastfeeding (among mothers of 0-5 month children delivered at home)	Seven up, one missing
Prelacteal feeds not given (among mothers of 0-5 month children delivered at home)	Seven up and one unchanged
Advice about breastfeeding received by the first week (among mothers of 0-5 month children delivered at home, contacted by fist week of delivery)	Five up, two unchanged and one down
Receipt of Supplementary Feeding during pregnancy among mothers of 6-23 month children	Four up and four unchanged
Receipt of Supplementary Feeding in first 6 months among mothers of 6-23 month children	Four up and four unchanged
Receipt of Supplementary Feeding after 6 months among mothers of 6-23 month children	Four up and four unchanged
Receipt at least 90 IFA among mothers of 0-5 mothers children	Four up and four unchanged
Consumed at least 90 IFA among mothers of 0-5 mothers children who received at least 90 IFA	Six up and two unchanged
Exclusive breastfeeding until 6 months among mothers of children up to 6 months	Four up, three unchanged and one down

Not started liquids or solids until six month (among mothers of 6-23 month children)	Five up, two unchanged and one down
Gave at least half the recommended quantity of semisolids (among mothers of 6-11 months children)	Five up and three unchanged
6-8 months fed solids at least twice plus breastfeeding. 9-11 months fed solids at least three times plus breastfeeding (among mothers of 6-11 months children)	Six up and two unchanged
12-23 months fed solids at least three times plus breastfeeding	Five up, two unchanged and one down
Low weight for age in children 0-5 months R2 vs. R3	Four down and four unchanged
Immunization	
Measles Vaccines received (card only) among mothers of 12-23 month children who had card	Four up, and four unchanged
Fully immunized (card only) among mothers of 12-23 month children who had card	Four up and four unchanged
Family Planning (only four districts/states)	
Indicator	Round 2 (R2)→ Round 3 (R3)*
Currently using any modern birth spacing method	Two up, two unchanged
Ever contacted by anyone in the last month	Two up, one unchanged and one down
Advised about family planning	Three up and one unchanged

* Round 1 (R1): November 2003; Round 2 (R2): July-September 2004; Round 3 (R3): September–November 2005

Annex 5: Table 3 Performance Indicators and Achievements of INHP II (May 11, 2006)

<i>Impact & Outcome Indicators ^a</i>	Baseline (INHP I Final Evaluation January 2001)	Life of Activity (LOA) Achieved^a (February 2006)
A. Impact Indicators		
% of children age 12-23 months whose weight is more than two standard deviations below the median weight achieved by children of that age (% malnourished)	61	53
Infant Mortality Rate ^c		
B. Outcome Indicators (Coverage & Practices)		
1. % of pregnant & lactating women and children 6-72 months of age, in program catchment area, received supplemental food from AWC		
1.a % of pregnant, received supplemental food from AWC(Ate or THR)	68	69
1.b % of lactating women , received supplemental food from AWC (Ate or THR)	NA ^d	69
1.c. % of children 6-23 months age, received supplemental food from AWC (Ate or THR)	42	65
1.d. % of children 36-72 months, received supplemental food from AWC ^e	NA ^m	111 ^m
2. % of children 12-23 months old, in program catchment area, receiving measles vaccine	37	71
3. % of children 18-23 months who received at least two doses of Vitamin A	5	27
4. % of women, delivered in past year, who received at least 2 TT injections during pregnancy	78	85
5. % of women , delivered in past year, who received 90+ iron folic acid tablets during pregnancy	39	50
6. % of women (with children 0-24 months of age) who report having made birth plans ^g during the third trimester of their last pregnancy ^b	NA	13
7. % of new-borns dried and wrapped immediately after delivery ^b	NA	84
8. % of newborns put to breast within 1 hour postpartum	NA ⁿ	80
9. % of children under 12 months of age exclusively breastfed till 6 months postpartum	NA ⁿ	44
10. % of infants, received breast milk and solid mushy foods at 6-9 months of age	49	78

Annex 5 Table 3 INHP II		FY 02		FY 03		FY 04		FY 05		FY 06		L O A	
B. C. Management Indicators	Baseline ^h	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved (First Quarter of FY 06)	LOA Target	LOA Achieved
1. % of counterpart personnel and community members given training in nutrition and health topics as against planned to be trained	79	100	92	100	73	100	119	100	88	100	69	100	
2. % of AWCs conducting at least one Nutrition and Health Day last month with Take Home Ration and immunization/or ante-natal check-up.	36	40	43	50	28	50	48	55	55	60	54	60	
3. % of AWCs where Immunization and/or AN Check-up were provided on a scheduled NHD, in absence of THR, last month ⁱ	NA	NA	NA	NA	NA	60	27	75	27	80	33	80	
4. % of pregnant & lactating women and children 6-36 months, in program area, enrolled for take home ration (THR) ^j													
a. Pregnant & Lactating Women ^k	71	75	81	80	75	50	113	80 ^k	94	80 ^k	59	80 ^k	
b. Children 6-36 months ^k	76	80	95	85	86	50	106	80 ^k	99	80 ^k	71	80 ^k	
5. % of AWCs with change agents	12	12	8	20	18	30	36	40	46	50	48	50	
6. % of Nutrition and Health Days where CBO and/or PRI participated, last month ^l	NA	100	67	100	100	20 ^l	27	25 ^l	41	30 ^l	45	30 ^l	

^a All India figures are weighted averages of all eight INHP states for outcome indicators

^b Data on “birth planning” and “drying and wrapping of newborn” were not collected in the INHP I Final Evaluation. Hence no baseline was available for INHP II. The end line data for these indicators are from seven states, excluding Madhya Pradesh.

^c Though INHP II interventions work towards improvement in this indicator, mortality will not be measured because of sample size requirements and complexity

^d No baseline are available for 1b of this indicator because questions were not comparable in baseline and endline surveys.

^e For reporting on this indicator Government data will be used

^g Birth plans for delivery during pregnancy include identification of a health facility and a skilled provider (Trained ANM/TBA), and savings.

^h The source for this baseline is Quarterly Progress Report for April-June, 2001

ⁱ This indicator has been added to PTT during DAP Amendment. Hence no targets were set for FY 02 and FY 03

^j The denominator for this indicator is Annual Estimated Requirement (AER) for food

^k Based on previous years performance, the target for FY 04, FY 05 and LOA have been revised and submitted along with Annual Results Report for FY04

^l In the original PTT, the definition used was “# of CBOs/PRIIs involved in monitoring of nutrition and health services (actual vs. planned)”. The new definition and targets were introduced during DAP Amendment effective from FY 04

m The data is compiled from ICDS monthly reports for the age group of 36-72 months. Quarterly (October-December 2005) average of coverage against List of Provisions (LOP) is taken. No baseline data were collected.

n No baseline data were available for Uttar Pradesh or West Bengal. Therefore weighted national average baselines for these indicators could not be calculated.

Annex 5 Table 4 *Chayan* Indicator Performance Tracking Table (All India Weighted Averages)ⁱ

	Baseline (2003)		LOA (2008)		Feb '2006	
Outcome Indicators	All Blocks	DS	All Blocks	DS	All Blocks	DS
1. % of womenⁱⁱ currently practicing the following contraceptive methodsⁱⁱⁱ:						
Condom	4.1	2.8	5.7	4.4	6.1	5.8
OCPs	2.3	2.3	5.1	5.1	5.0	4.8
Either Condom or OCPs	6.4	5.1	10.8	9.5	11.2	10.6
2. % of index women in general population who are correctly aware of at least two signs and symptoms of RTI/STI ^{iv}	30	28	40	38	56.1	59.2
3. % of men, women among select groups most at risk who report using a condom the last time they had sex with a non-marital, non-cohabiting partner ^v :						
Truckers (urban)	62		72		82.7	
Migrants(urban)	61		71		69.0	
Female sex workers (urban - With paying clients)	69		84		86.7	

Annex 5 Table 4 (continued) Management Indicators for Chayan Project^b

		FY02		FY03		FY 04		FY 05		FY 06 ⁱⁱ		LOA	
Management Indicators	Baseline	Target	Achieved	Target	Achieved	Target	Achieved ⁹	Target	Achieved ¹⁰	Target	Achieved (Q1 of FY 06)	Target	Achieved
1. % of AWCs with Reproductive Health Change Agents ^{vi}	0	NA	NA	NA	NA	100	29		25		31	50	
2. % of AW centers with at least one outlet that has socially marketed contraceptives ^{vii}	0	NA	NA	NA	NA	100	36		22		32	75	
3. % sites with peer educators ^{viii} for HRBG targeted interventions													
Truckers	0	NA	NA	NA	NA	100	*		NA ¹²		100	50	
Migrants	0	NA	NA	NA	NA	100	*		NA ¹²		100	50	
CSWs	0	NA	NA	NA	NA	100	*		NA ¹²		100	50	
4. % sites ¹³ with peer educators for youth interventions	0	NA	NA	NA	NA	100	*		NA ¹²		99	50	

ⁱ The baseline data are national weighted averages according to number of Blocks in each Chayan state.

ⁱⁱ Currently married women in the age group of 15 to 44 years.

ⁱⁱⁱ Chayan rural blocks in each state are used as weights. The LOA is estimated based on the % increase observed between NFHS-1 and NFHS-2 (6 years gap). Further, this % increase is doubled and then applied to the baseline figures. The ALL column includes Urban, Rural Non-DS and Tribal-Non DS, while DS column includes rural DS and tribal-DS in the baseline.

^{iv} Chayan rural blocks in each state are used as weights. The FY07 is estimated on 10 percentages points increase from the baseline.

^v Total sites in each state are used as weights. The FY07 is estimated with the assumptions: For CSWs, 15% points and 10% points for truckers/migrants is considered as these statistical assumptions are used in BSS also.

^b **The indicator table was discussed with USAID in 2004, however, it was not finalized and hence not used for tracking progress. Milestones developed in FY04 were used for tracking progress and for reporting. Hence targets for FY 05 & FY 06 were not set.**

^{vi} One male and one female volunteer per AWC catchment area trained in FP and RTI/STI/HIV prevention, who have undergone at least one round of training. The FY04 is calculated using (simple averages) the HMIS data for Oct. 03 to Sept. 04. As the replication has not yet started on scale, the FY04 value represents only DS (i.e., both numerator and denominator is taken only from DS). The targets are taken from the project milestones.

The targets from FY05 onwards will include replication efforts also.

^{vii} The achievement for FY04 is calculated using (simple averages) the HMIS data for Oct. 03 to Sept. 04. As the replication has not yet started on scale in FY04, the FY04 value represents only DS (**i.e., both numerator and denominator is taken only from DS**). The targets for Rural Chayan from FY05 onwards will include replication efforts also.

^{viii} Peer educator: total number of peer educators per site to correspond to reaching a target population by recommended ratio of 1:10 for non brothel based sex workers; 1: 5 for brothel based sex workers; 1: 30 for truckers and 1: 20 for migrants;

⁹ As the replication has not yet started on scale in FY04, the FY04 value represents only DS (**i.e., both numerator and denominator is taken only from DS**). The targets are taken from the project milestones. The targets from FY05 onwards will include replication efforts also.

¹⁰ **The figures for indicator 1 and 2 are for all areas (i.e. both numerator and denominator are taken from all AWCs including DS and RS)**

¹¹ Achievement for FY 06 for indicators 3 and 4 are from DS only. Chayan MIS in urban areas does not capture progress on these indicators from replication areas

¹² The information for this indicator for FY 05 is available only for Peer Educators identified Vs trained, not by sites having trained Peer Educators

* The achievement figures for indicator no. 3 and 4 in FY04 are not available. The key reason is that the Chayan NGO reporting system was placed only in September 2004 on pilot basis. Therefore, the data reported is of poor quality and also under-reported. The NGO monitoring system will have accurate and complete data from October 2004 onwards.

¹³ For youth interventions sites mean a cluster of 3 -4 AWCs. Data are available only from demonstration areas.